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THE WORKS OF

LORD BACON.

VOL. II.

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THE WORKS

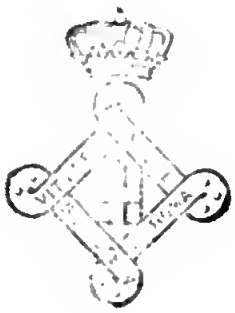
OF

LORD BACON.

WITH

AN INTRODUCTORY ESSAY,

AND A PORTRAIT.



IN TWO VOLUMES.

VOL. II.

LONDON:
HENRY G. BOHN, YORK STREET,
COVENT GARDEN.
MDCCCL.

JOHN CHILDS AND SON, BUNGAY.

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FIRST PUBLISHED BY DR. BIRCH, IN ONE VOLUME OCTAVO, IN 1763.

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LETTERS.

LETTERS IN THE REIGN OF QUEEN ELIZABETH.

I.*

It may please your good Loanships,

I am sorry the joint masque from the four inns of court faileth; wherein I conceive there is no other ground of that event but impossibility. Nevertheless, because it falleth out that at this time Gray's Inn is well furnished of gallant young gentlemen, your lordship may be pleased to know that rather than this occasion shall pass without some demonstration of affection from the ions of court, there are a dozen gentlemen of Gray's Inn, that out of the honour which they bear to your lordship and my lord chamberlain, to whom at their last masque they were so much bouoden, will be ready to furnish a masque; wishing it were in their power to perform it according to their mind. And so for the present I humbly take my leave, restiug,

Your Lordship's very humble and mueh bounden,

FR. BACON.

II. A LETTER OF CEREMONY TO QUEEN ELIZABETH, UPON THE SENDING OF A NEW-YEAR'S GIFT.†

It may please your sacren Majesty,

Accornino to the ceremony of the time, I would not forget, in all humbleness, to present your Majesty with a small new-year's gift: notbiog to my mind. And therefore to supply it, I cannot but pray to God to give your Majesty his new-year's gift; that is, a new year that shall be as no year to your body, and as a year with two harvests to your coffers; and every other way prosperous and gladsome. And so I remain,

Your Majesty's loyal and obedient subject.

III. A LETTER OF CEREMONY TO QUEEN ELIZABETH, UPON THE SENDING OF A NEW-YEAR'S GIFT.‡

Most excellant sovereion mistaess,

The only new-year's gift, which I ean give your Majesty, is that, whieh God hath given to me; whieh is, a mind in all humbleness to wait upon your commandments and business: wherein I would to God, that I were hooded, that I saw less; or that I could perform more: for now I am like a hawk, that bates, when I see occasion of service, but eannot fly, because I am tied to another's fist. But meanwhile, I eontiuue my presumption of making to your Majesty my poor oblation of a garment; as unworthy the wearing, as his service that sends it, but the approneh to your excellent person may give worth to both; whieh is all the happiness I aspire unto.

IV. TO THE QUEEN.§

It may please your sacaed Majesty,

I woulN not fail to give your Majesty my most humble and due thanks, for your royal ehoiee of such eommissioners in the great star-chamber eause; being persons, besides their honour, of sueh scienee and integrity: by whose report I doubt not but your Majesty will find that, which you have been heretofore informed, both by my lord keeper, and by some moch meaner person, touching the nature of that cause, to be true. This preparatory hearing doth already assail me, with new and enlarged offers of eomposition; whieb if I had borne a mind to liave hearkened unto, this matter had been quenehed long ago, without any benefit to your Majesty. But your Majesty's benefit is to me in greater regard than mine own particular: trusting to your Majesty's graeious disposition aod royal word, that your Majesty will include me in any extraordinary eourse of your sovereign pleasure, which your Majesty shall like to take in this eause. The other man, I spoke to your Majesty of, may, within these two terms, be in the same straits, betweeu your Majesty's justice and merey, that this man now is, if your Majesty be so pleased. So most humbly eraviog pardon for my presuming to seek access for these few lines, I reeommend your Majesty to the most precioua eustody and best preservation of the Divine Majesty.

Your Majesty's most humble, and entirely obedient servant and subject.

* Harl. MSS. Vol. 7042. No. 2
† Rawley's Resuscitatio.
‡ Rawley's Resuscitatio.
§ Ibid. Probably wrote 1600.

V. TO THE QUEEN.*

It may please your excellent Majesty,

I presume according to the ceremony and good manner of the time and my accustomed duty, in all humbleness, to present your Majesty with a simple gift; almost as far from answering my mind, as sorting with your greatness; and therewith wish, that we may continue to reckon on, and ever, your Majesty's happy years of reign: and they that reckon upon any other hopes, I would they might reckon short and to their cost. And so craving pardon most humbly, I commend your Majesty to the preservation of the divine goodness.

VI. TO THE QUEEN.†

It may please your excellent Majesty,

I most humbly entreat your Majesty, not to impute my absence to any weakness of mind or unworthiness. But, I assure your Majesty, I do find envy beating so strongly upon me, standing as I do, if this be to stand, as it were not strength of mind, but stupidity, if I should not decline the occasions; except I could do your Majesty more service than I can any ways discern that I am able to do. My course towards your Majesty, God is my witness, hath been pure and unleavened; and never poor gentleman, as I am persuaded, had a deeper and truer desire and care of your glory, your safety, your repose of mind, your service: wherein, if I have exceeded my outward vocation, I most humbly crave your Majesty's pardon for my presumption. On the other side, if I have come short of my inward vocation, I most humbly crave God's pardon for quenching the Spirit. But in this mind I find such solitude, and want of comfort, which I judge to be, because I take duty too exactly, and not according to the dregs of this age, wherein the old anthem might never be more truly sung, "Totus mundus in maligno positus est." My life hath been threatened, and my name libelled, which I count an honour. But these are the practices of those whose despairs are dangerous, but yet not so dangerous as their hopes; or else the devices of some, that would put out all your Majesty's lights, and fall on reckoning how many years you have reigned; which I beseech our blessed Saviour may be doubled, and that I may never live to see any eclipse of your glory, interruption of safety, or indisposition of your person, which I commend to the Divine Majesty, who keep you and fortify you.

This seems to refer to the earl of Essex, 1600.

VII. TO MY LORD TREASURER BURGHLEY. 1591.‡

My lord,

With as much confidence as mine own honest and faithful devotion unto your service, and your honourable correspondence unto me and my poor estate can breed in a man, do I commend myself unto your lordship. I wax now somewhat ancient; one and thirty years is a great deal of sand in the hour-glass. My health, I thank God, I find confirmed; and I do not fear that action shall impair it; because I account my ordinary course of study and meditation to be more painful than most parts of action are. I ever bare a mind, in some middle place that I could discharge, to serve her Majesty; not as a man born under Sol, that loveth honour; nor under Jupiter, that loveth business, for the contemplative planet carrieth me away wholly: but as a man born under an excellent sovereign, that deserveth the dedication of all men's abilities. Besides I do not find in myself so much self-love, but that the greater part of my thoughts are to deserve well, if I were able, of my friends, and namely of your lordship; who being the atlas of this commonwealth, the honour of my house, and the second founder of my poor estate, I am tied by all duties, both of a good patriot, and of an unworthy kinsman, and of an obliged servant, to employ whatsoever I am to do you service. Again, the meanness of my estate doth somewhat move me: for though I cannot accuse myself, that I am either prodigal or slothful, yet my health is not to spend, nor my course to get. Lastly, I confess that I have as vast contemplative ends, as I have moderate civil ends: for I have taken all knowledge to be my province; and if I could purge it of two sorts of rovers, whereof the one with frivolous disputations, confutations, and verbosities; the other with blind experiments and auricular traditions and impostures, hath committed so many spoils; I hope I should bring in industrious observations, grounded conclusions, and profitable inventions and discoveries; the best state of that province. This, whether it be curiosity, or vain-glory, or nature, or if one take it favourably, *philanthropia*, is so fixed in my mind, as it cannot be removed. And I do easily see that place of any reasonable countenance doth bring commandment of more wits than of a man's own; which is the thing I greatly affect. And for your lordship, perhaps you shall not find more strength and less encounter in any other. And if your lordship shall find now or at any time, that I do seek or affect any place, whereunto any that is nearer unto your lordship shall be concurrent, say then that I am a most dishonest man. And if your lordship will not carry me on, I will not do as Anaxagoras did, who reduced himself with contemplation unto voluntary poverty: but this I will do, I will sell the inheritance that I have, and purchase some lease of quick revenue, or some office of gain, that shall be executed by deputy, and so give over all care of service, and become some sorry book-maker, or a true pioneer in that mine of truth, which, he said, lay so deep. This which I have writ unto your lordship, is rather thoughts than words, being set down without all art, disguising, or reservation: wherein I have done honour both to your lordship's wisdom, in judging that that will be best believed of your lordship which

* Rawley's Resuscitatio. † Ibid. ‡ Ibid.

is truest; and to your lordship's good nature in retaining nothing from you. And even so, I wish your lordship all happiness, and to myself means and occasion to be added to my faithful desire to do you service.

From my lodging at Gray's Inn.

VIII. TO THE LORD TREASURER BURGHLEY.*

My singular good Lord,

Your lordship's comfortable relation of her Majesty's gracious opinion and meaning towards me, though at that time your leisure gave me not leave to show how I was affected therewith; yet upon every representation thereof it entereth and striketh more deeply into me, as both my nature and duty presseth me to return some speech of thankfulness. It must be an exceeding comfort and encouragement to me, setting forth and putting myself in way towards her Majesty's service, to encounter with an example so private and domestical, of her Majesty's gracious goodness and benignity; being made good and verified in my father, so far forth, as it extendeth to his posterity: accepting them as commended by his service, during the non-age, as I may term it, of their own deserts. I, for my part, am very well content, that I take least part, either of his abilities of mind, or of his worldly advancement; both which he held and received, the one of the gift of God immediately, the other of her Majesty's gift: yet in the loyal and earnest affection which he bare to her Majesty's service, I trust my portion shall not be with the least; nor in proportion with the youngest birth. For methinks his precedent should be a silent charge, upon his blessing, unto us all, in our degrees, to follow him afar off, and to dedicate unto her Majesty's service both the use and spending of our lives. True it is, that I must needs acknowledge myself prepared and furnished thereunto with nothing but with a multitude of lacks and imperfections; but calling to mind how diversly, and in what particular providence God hath declared himself to tender the state of her Majesty's affairs, I conceive and gather hope, that those whom he hath in a manner pressed for her Majesty's service, by working and imprinting in them a single and zealous mind to bestow their duties therein; he will see them accordingly appointed of sufficiency convenient for the rank and standing where they shall be employed: so as, under this her Majesty's blessing, I trust to receive a larger allowance of God's graces. And as I may hope for this, so I can assure and promise for my endeavour, that it shall not be in fault; but what diligence can entitle me unto, that I doubt not to recover. And now seeing it hath pleased her Majesty to take knowledge of this my mind, and to vouchsafe to appropriate me unto her service, preventing any desert of mine with her princely liberality; first, I humbly do beseech your lordship, to present to her Majesty my more than humble thanks for the same: and withal, having regard to my own unworthiness to receive such favour, and to the small possibility in me to satisfy and answer what her Majesty conceiveth, I am moved to become a most humble suitor to her Majesty, that this benefit also may be affixed unto the other; which is, that if there appear in me no such towardness of service, as it may be her Majesty doth benignly value and assess me at, by reason of my sundry wants, and the disadvantage of my nature, being unapt to lay forth the simple store of those inferior gifts which God hath allotted unto me, most to view; yet that it would please her excellent Majesty, not to account my thankfulness the less, for that my disability is great to show it; but to sustain me in her Majesty's gracious opinion, whereupon I only rest, and not upon any expectation of desert to proceed from myself towards the contentment thereof. But if it shall please God to send forth an occasion whereby my faithful affection may be tried, I trust it shall save me labour for ever making more protestation of it hereafter. In the mean time, howsoever it be not made known to her Majesty, yet God knoweth it through the daily solicitations wherewith I address myself unto him, in unfeigned prayer, for the multiplying of her Majesty's prosperities. To your lordship also, whose recommendation, I know right well, hath been material to advance her Majesty's good opinion of me, I can be but a bounden servant. So much may I safely promise, and purpose to be, seeing public and private bonds vary not, but that my service to her Majesty and your lordship draw in a line. I wish therefore to show it with as good proof, as I can say it in good faith, &c.

Your lordship's, &c.

* Rawley's Resuscitatio.

IX. TO THE LORD TREASURER BURGHLEY.†

May it please your good lordship,

I am to give you humble thanks for your favourable opinion, which, by Mr. Secretary's report I find you conceive of me, for the obtaining of a good place, which some of my honourable friends have wished unto me *nec opinanti*. I will use no reason to persuade your lordship's mediation, but this, that your lordship, and my other friends, shall in this beg my life of the queen; for I see well the bar will be my bier, as I must and will use it, rather than my poor estate or reputation shall decay. But I stand indifferent whether God call me, or her Majesty. Had I that in possession, which by your lordship's only means, against the greatest opposition, her Majesty granted me, I would never trouble her Majesty, but serve her still voluntarily without pay. Neither do I, in this, more than obey my friends' conceits, as one that would not be wholly wanting to myself. Your lordship's good opinion doth somewhat confirm me, as that I take comfort in above all others; assuring your lordship, that I never thought so well of myself for any one thing,

† Rawley's Resuscitatio.

as that I have found a fitness to my thinking, in myself to observe and revere your virtues: for the continuance whereof, in the prolonging of your days, I will still be your beadsman; and accordingly, at this time, commend your lordship to the divine protection.

X. TO THE LORD TREASURER BURGHLEY.*

MOST HONOURABLE AND MY VERY GOOD LORD,

I KNOW I may commit an error in writing this letter, both in a time of great and weighty business, as also when myself am not induced thereto by any new particular occasion; and therefore your lordship may impute to me either levity, or ignorance what appertaineth to good respects and forwardness of dealing, especially to an honourable person, in whom there is such concurrence of "magnitudo honoris et oneris," as it is hard to say whether is the greater. But I answer myself first, that I have ever noted it as a part of your lordship's excellent wisdom, "parvis componere magna;" that you do not exclude inferior matters of access, amongst the care of great. And for myself, I thought it would better manifest what I desire to express, if I did write out of a deep and settled consideration of my own duty, rather than upon the spur of a particular occasion: and therefore, my singular good lord, "ex abundantia cordis," I must acknowledge how greatly diversly your lordship hath vouchsafed to tie me unto you by many your benefits. The reversion of the office which your lordship only procured unto me, and carried through great and vehement opposition, though it yet bear no fruit, yet it is one of the fairest flowers of my poor estate; your lordship's constant and serious endeavours to have me solicitor; your late honourable wishes for the place of the wards; together with your lordship's attempt to give me way by the remove of Mr. Solicitor; they be matters of singular obligation: besides many other favours, as well by your lordship's grants from yourself, as by your commendation to others, which I have had for my help; and may justly persuade myself, out of the few denials I have received that fewer might have been, if mine own industry and good hap had been answerable to your lordship's goodness. But, on the other side, I most humbly pray your lordship's pardon if I speak it; the time is yet to come that your lordship did ever use, or command, or employ me, in my profession, in any services or occasions of your lordship's own, or such as are near unto your lordship; which hath made me fear sometimes, that your lordship doth more honourably affect me, than thoroughly discern of my most humble and dutiful affection to your lordship again: which if it were not in me, I knew not whether I were unnatural, unthankful, or unwise. This causeth me most humbly to pray your lordship, and I know mine own case too well, to speak it as weening I can do your lordship service, but as willing to do it, as, to believe, that your lordship is upon just title, a principal owner and proprietor of that, I cannot call, talent, but mite, that God hath given me; which I ever do and shall devote to your service. And in like humble manner, I pray your lordship to pardon mine errors, and not to impute unto me the errors of any other, which I know also themselves have by this time left and forethought, but to conceive of me to be a man that daily profiteth in duty. It is true I do in part comfort myself, supposing that it is my weakness and insufficiency that moveth your lordship, who hath so general a command, to use others more able. But let it be as it is, for duty only and homage I will boldly undertake, that nature and true thankfulness shall never give place to a politic dependence. Lastly, I most humbly desire your lordship to continue unto me the good favour, and countenance, and encouragement, in the course of my poor travails, whereof I have had some taste and experience; for the which I yield your lordship my very humble good thanks. And so again, craving your honour's pardon for so long a letter, carrying so empty an offer of so impuissant a service, but yet a true and unfeigned signification of an honest and vowed duty; I cease, commending your lordship to the preservation of the Divine Majesty.

* Rawley's Resuscitatio.

XI. A LETTER TO THE LORD TREASURER BURGHLEY, IN EXCUSE OF HIS SPEECH IN PARLIAMENT AGAINST THE TRIPLE SUBSIDY.†

IT MAY PLEASE YOUR LORDSHIP,

I WAS sorry to find, by your lordship's speech yesterday, that my last speech in parliament, delivered in discharge of my conscience, and duty to God, her Majesty, and my country, was offensive. If it were misreported, I would be glad to attend your lordship to disavow any thing I said not; if it were misconstrued, I would be glad to expound myself, to exclude any sense I meant not. If my heart be misjudged by imputation of popularity or opposition, by any envious or officious informer, I have great wrong; and the greater, because the manner of my speech did most evidently show, that I spake simply and only to satisfy my conscience, and not with any advantage, or policy to sway the cause: and my terms carried all signification of duty and zeal towards her Majesty and her service. It is true, that from the beginning, whatsoever was above a double subsidy, I did wish might, for precedent's sake, appear to be extraordinary, and, for discontent's sake, might not have been levied upon the poorer sort: though otherwise, I wished it as rising as I think this will prove, and more. This was my mind, I confess it: and therefore I most humbly pray your good lordship, first, to continue me in your own good opinion: and then to perform the part of an honourable friend towards your poor servant and alliance, in drawing her Majesty to accept of the sincerity and simplicity of my heart, and to bear

† Rawley's Resuscitatio.

with the rest, and restore me to her Majesty's good favour, which is to me dearer than my life. And so, &c.

Your lordship's most humble in all duty.

1593, April.

XII. TO THE RIGHT HONOURABLE HIS VERY GOOD LORD, THE LORD KEEPER OF THE GREAT SEAL, &c.*

My very good lord,

I was wished to be here ready in expectation of some good effect; and therefore I commend my fortune to your lordship's kind and honourable furtherance. My affection inclineth me to be much [your] lordship's, and my course and way, in all reason and policy for myself, leadeth me to the same dependence: hereunto if there shall be join'd your lordship's obligation in dealing strongly for me as you have begun, no man can be more yours. A timorous man is every body's, and a covetous man is his own. But if your lordship consider my nature, my course, my friends, my opinion with her Majesty, if this eclipse of her favour were past, I hope you will think, I am no unlikely piece of wood to shape you a true servant of. My present thankfulness shall be as much as I have said. I humbly take my leave.

Your lordship's true humble servant,

FR. BACON.

From Greenwich this
5th of April, 1594.

XIII. TO THE RIGHT HONOURABLE MY VERY GOOD LORD, THE LORD KEEPER.†

My lord,

I have, since I spake with your lordship, pleaded to the queen against herself for the injury she doth Mr. Bacon in delaying him so long, and the unkindness she doth me in granting no better expedition in a suit which I have followed so long, and so affectionately. And though I find that she makes some difficulty, to have the more thanks, yet I do assure myself she is resolved to make him. I do write this not to solicit your lordship to stand firm in assisting me, because, I know, you hold yourself already tied by your affection to Mr. Bacon, and by your promise to me; but to acquaint your lordship of my resolution to set up my rest, and employ my uttermost strength to get him placed before the term: so as I beseech your lordship think of no temporizing course, for I shall think the queen deals unkindly with me, if she do not both give him the place, and give it with favour and some extraordinary advantage. I wish your lordship all honour and happiness; and rest,

Your lordship's very assured,

ESSEX.

Greenwich, this 14th of January, [1594.]

Endorsed,

My lord of Essex for Mr. Fran. Bacon to be solicitor.

XIV. TO THE RIGHT HONOURABLE HIS VERY GOOD LORD, THE LORD KEEPER OF THE GREAT SEAL.‡

My very good lord,

Sir Thomas Egerton failing of your lordship, being newly gone, sent his letter to me to see conveyed unto you, which I send enclosed; desiring your lordship, according to your kind affection, to make the best use thereof for my furtherance. And I pray your lordship to call to remembrance my lord treasurer's kind course, who affirmed directly all the rest to be unfit. And because *vis unita fortior*, I pray your lordship to take a time with the queen when my lord treasurer is present. Thus in hope to-morrow will bring forth some good effect, I rest,

Your lordship's in all humble duty and service,

FR. BACON.

XV. TO THE RIGHT HONOURABLE, &c. THE LORD KEEPER, &c.§

My very good lord,

Because I understand your lordship remaineth at court till this day, and that my lord of Essex writeth to me, that his lordship cometh to London, I thought good to remember your lordship, and to request you, as I touched in my last, that if my lord treasurer be absent, your lordship would forbear to fall into my business with her Majesty, lest it might receive some foil before the time, when it should be resolutely dealt in. And so commending myself to your good favour, I most humbly take my leave.

Your lordship's in all humble duty and service,

FR. BACON.

From Gray's-Inn this
8th of April, 1594.

XVI. EARL OF ESSEX TO LORD KEEPER PUCKERING.‖

My lord,

My short stay at the court made me fail of speaking with your lordship; therefore I must write that which myself had told you; that is, that your lord-

* Harl. MSS. Vol. 6997. No. 20.
† Ibid. No. 87.
‡ Harl. MSS. Vol. 6996. No. 52.
§ Ibid. No. 50.
‖ Ibid. No. 72.

ship will be pleased to forbear pressing for a solicitor, since there is no cause towards the end of a term to call for it; and because the absence of Mr. Bacon's friends may be much to his disadvantage. I wish your lordship all happiness, and rest

Your lordship's very assured to be commanded,

ESSEX.

Wanstead this 4th of May, 1594.

XVII. TO THE RIGHT HONOURABLE THE LORD KEEPER, &c.

IT MAY PLEASE YOUR GOOD LORDSHIP,

I UNDERSTAND of some business like enough to detain the queen to-morrow, which maketh me earnestly to pray your good lordship, as one that I have found to take my fortune to heart, to take some time to remember her Majesty of a solicitor this present day.

Our Tower employment stayeth, and hath done these three days, because one of the principal offenders being brought to confess, and the other persisting in denial, her Majesty in her wisdom thought best some time were given to him that is obstinate, to bethink himself; which indeed is singular good in such cases. Thus desiring your lordship's pardon, in haste I commend my fortune and duty to your favour.

Your lordship's most humbly to receive your commandments,

FR. BACON.

From Gray's-Inn this
13th of August, 1594.

XVIII. TO THE RIGHT HONOURABLE THE LORD KEEPER, &c.*

IT MAY PLEASE YOUR GOOD LORDSHIP,

As your lordship hath at divers times helped me to pass over contrary times, so I humbly pray you not to omit this favourable time. I cannot bear myself as I should, till I be settled. And thus desiring pardon, I leave your lordship to God's preservation.

Your lordship's most humbly at commandment,

FR. BACON.

From Gray's-Inn this
25th of August, 1594.

XIX. TO THE RIGHT HONOURABLE HIS VERY GOOD LORD, THE LORD KEEPER, &c.†

IT MAY PLEASE YOUR GOOD LORDSHIP,

I WAS minded, according to the place of employment, though not of office, wherein I serve, for my better direction and the advancement of the service, to have acquainted your lordship, now before the term, with such her Majesty's causes as are in my hands. Which course intended out of duty, I do now find by that I hear from my lord of Essex, your lordship of your favour is willing to use for my good, upon that satisfaction you may find in my travels. And I now send to your lordship, together with my humble thanks, to understand of your lordship's being at leisure, what part of to-morrow, to the end I may attend your lordship, which this afternoon I cannot, in regard of some conference I have appointed with Mr. Attorney-general. And so I commend your honourable lordship to God's good preservation.

Your good lordship's humbly at your hon[ourable] commandments,

FR. BACON.

From Gray's-Inn the 25th
of September, Friday.

XX. TO THE RIGHT HONOURABLE THE LORD KEEPER, &c.‡

IT MAY PLEASE YOUR GOOD LORDSHIP,

I RECEIVED, at my lord of Essex last going from court, a message of good assurance, which his lordship sent to my brother and to myself; which was this: That her Majesty had stedfastly promised him to despatch my matter to-morrow. And somewhat her Majesty said to myself, when I attended her upon some service since, which I liked well, though it was with some doubtfulness, as, they say, her Majesty useth till the last hour. This I thought good to signify to your good lordship, both that your lordship may perceive how effectual and operative your lordship's last dealing with her Majesty was; and also that, now the wheel is going, your lordship would set it forward, the rather in respect of the necessity to go presently in hand with these criminal causes, if the commission shall hold according to the adjournment. And if her Majesty should not be pleased presently to give order for a patent, yet if your lordship may by her warrant give me warning to prepare myself, it will be some hold and satisfaction. So thinking long to have the strength of place, to do your lordship acceptable service, I leave your good lordship to God's good preservation.

Your lordship's most humbly at your hon[ourable] commandments,

FR. BACON.

From Gray's-Inn this 28th
of September, 1594.

XXI. TO THE RIGHT HONOURABLE THE LORD KEEPER, &c.§

IT MAY PLEASE YOUR LORDSHIP,

I THOUGHT good to step aside for nine days, which is the durance of a wonder, and not for any dislike in the world; for I think her Majesty hath done me as great a favour in making an end of this matter, as if she had enlarged me from some restraint. And I humbly pray your lordship, if it so

* Harl. MSS. Vol. 6996. No. 103. † Ibid. No. 109. ‡ Ibid. No. 110. § Ibid. Vol. 6997. No. 14.

please you, to deliver to her Majesty from me, that I would have been glad to have done her Majesty service now in the best of my years, and the same mind remains in me still; and that it may be, when her Majesty hath tried others, she will think of him that she hath cast aside. For I will take it upon that which her Majesty hath often said, that she doth reserve me, and not reject me. And so I leave your good lordship to God's good preservation.

Your lordship's much bounden,
FR. BACON.

From Twicknam-Park this
20th of May, 1595.

Endorsed,
Mr. Fr. Bacon, his contentation to leave the solicitorship.

XXII. A LETTER TO THE LORD TREASURER BURGHLEY, RECOMMENDING HIS FIRST SUIT, TOUCHING THE SOLICITOR'S PLACE.*

My lord,

After the remembrance of my most humble duty, though I know, by late experience, how mindful your lordship vouchsafeth to be of me and my poor fortunes, since it pleased your lordship, during your indisposition, when her Majesty came to visit your lordship, to make mention of me for my employment and preferment; yet being now in the country, I do presume that your lordship, who of yourself had so honourable care of the matter, will not think it a trouble to be solicited therein. My hope is, that whereas your lordship told me her Majesty was somewhat gravelled upon the offence she took at my speech in parliament; your lordship's favourable and good word, who hath assured me, that for your own part you construed, that I spake to the best, will be as a good tide to remove her from that shelf. And it is not unknown to your good lordship, that I was the first of the ordinary sort of the lower house of parliament that spake for the subsidy; and that which I after spake in difference, was but in circumstances of time and manner, which methinks should be no great matter, since there is variety allowed in council, as a discord in music, to make it more perfect. But I may justly doubt, not so much her Majesty's impression upon this particular, as her conceit otherwise of my insufficiency; which though I acknowledge to be great, yet it will be the less, because I purpose not to divide myself between her Majesty and the causes of other men, as others have done, but to attend her business only: hoping that a whole man meanly able, may do as well as half a man better able. And if her Majesty think that she shall make an adventure in using one that is rather a man of study, than of practice and experience; surely I may remember to have heard that my father, an example, I confess, rather ready than like, was made solicitor of the augmentation, a court of much business, when he had never practised, and was but twenty-seven years old; and Mr. Brograve was now in my time called to be attorney of the duchy, when he had practised little or nothing; and yet discharged his place with great sufficiency. But these things and the like are as her Majesty shall be made capable of them; wherein, knowing what authority your lordship's commendation hath with her Majesty, I conclude with myself, that the substance of strength which I may receive, will be from your lordship. It is true, my life hath been so private, as I have had no means to do your lordship service; but yet, as your lordship knoweth, I have made offer of such as I could yield; for as God hath given me a mind to love the public; so incidently, I have ever had your lordship in singular admiration; whose happy ability her Majesty hath so long used, to her great honour and yours. Besides, that amendment of state or countenance, which I have received, hath been from your lordship. And therefore if your lordship shall stand a good friend to your poor ally, you shall but "tueri opus proprium," which you have begun. And your lordship shall bestow your benefit upon one that hath more sense of obligation than of self-love. Thus humbly desiring pardon of so long a letter, I wish your lordship all happiness. This 7th of June 1595.

Your Lordship's in all humbleness to be commanded.

* Rawley's Resuscitatio.

XXIII. TO THE RIGHT HONOURABLE THE LORD KEEPER, &c.†

May it please your good lordship,

Not able to attend your lordship myself, before your going to the court, by reason of an ague, which offered me a fit on Wednesday morning, but since by abstinence, I thank God, I have starved it, so as now he hath turned his back, I am chasing him away with a little physic: I thought good to write these few words to your lordship, partly to signify my excuse, if need be, that I assisted not Mr. Attorney on Thursday last in the star-chamber, at which time, it is some comfort to me, that I hear by relation somewhat was generally taken hold of by the court, which I formerly had opened and moved; and partly to express a little my conceit, touching the news which your lordship last told me from the queen, concerning a condition in law knit to an interest, which your lordship remembereth, and is supposed to be broken by misfeyance. Wherein surely my mind, as far as it appertaineth to me, is this, that as I never liked not so much as the coming in upon a lease by way of forfeiture, so I am so much enemy to myself, as I take no contentment in any such hope of advantage. For as your lordship can give me best testimony, that I never in my life propounded any such like motion, though I have been incited thereto; so the world will hardly believe, but that it is underhand quickened and nourished from me. And truly, my lord, I would not be thought to supplant any man for

† Harl. MSS. Vol. 6997. No. 18.

great gain; and I humbly pray your lordship to continue your commendation and countenance to me in the course of the queen's service that I am entered into: which when it shall please God to move the queen to profit,* I hope I shall give cause for your lordship to obtain as many thanks as you have endured chidings. And so I commend your good lordship to God's good preservation.

Your Lordship's most humbly at your hon[ourable] commandment,

From Gray's Inn the 11th of June, 1595. FR. BACON.

XXIV. TO THE RIGHT HONOURABLE THE LORD KEEPER, &c.†

IT MAY PLEASE YOUR LORDSHIP,

THERE hath nothing happened to me in the course of my business more contrary to my expectation, than your lordship's failing me, and crossing me now in the conclusion, when friends are best tried. But now I desire no more favour of your lordship, than I would do if I were a suitor in the chancery; which is this only, that you would do me right. And I for my part, though I have much to allege, yet nevertheless, if I see her Majesty settle her choice upon an able man, such a one as Mr. Serjeant Fleming, I will make no means to alter it. On the other side, if I perceive any insufficient obscure idole‡ man offered to her Majesty, then I think myself double bound to use the best means I can for myself; which I humbly pray your lordship I may do with your favour, and that you will not disable me farther than is cause. And so I commend your lordship to God's preservation,

That beareth your lordship all humble respect,

From Gray's-Inn the 28th of July, 1595. FR. BACON.

Endorsed, in Lord Keeper's hand,

Mr. Bacon wronging me.

XXV. TO THE RIGHT HONOURABLE THE LORD KEEPER, &c.§

MAY IT PLEASE YOUR LORDSHIP,

I THOUGHT it became me to write to your lordship, upon that which I have understood from my lord of Essex, who vouchsafed, as I perceive, to deal with your lordship of himself to join with him in the concluding of my business, and findeth your lordship hath conceived offence, as well upon my manner when I saw your lordship at Temple last, as upon a letter, which I did write to your lordship some time before. Surely, my lord, for my behaviour, I am well assured, I omitted no point of duty or ceremony towards your lordship. But I know too much of the court to beg a countenance in public place, where I make account I shall not receive it. And for my letter, the principal point of it was, that which I hope God will give me grace to perform, which is, that if any idole may be offered to her Majesty, since it is mixt with my particular, to inform her Majesty truly, which I must do, as long as I have a tongue to speak, or a pen to write, or a friend to use. And farther I remember not of my letter, except it were that I writ, I hoped your lordship would do me no wrong, which hope I do still continue. For if it please your lordship but to call to mind from whom I am descended, and by whom, next to God, her Majesty, and your own virtue, your lordship is ascended; I know you will have a compunction of mind to do me any wrong. And therefore, good my lord, when your lordship favoureth others before me, do not lay the separation of your love and favour upon myself. For I will give no cause, neither can I acknowledge any, where none is; but humbly pray your lordship to understand things as they are. Thus sorry to write to your lordship in an argument which is to me unpleasant, though necessary, I commend your lordship to God's good preservation.

Your lordship's in all humble respect,

FR. BACON.

From Twicknam-Park this 19th of August, 1595.

XXVI. TO THE RIGHT HONOURABLE THE LORD KEEPER, &c.‖

IT MAY PLEASE YOUR GOOD LORDSHIP,

I AM sorry the opportunity permitteth me not to attend your lordship as I minded. But I hope your lordship will not be the less sparing in using the argument of my being studied and prepared in the queen's causes, for my fartherance, upon belief that I had imparted to your lordship my travels, which some time next week I mean to do. Neither have I been able to confer with Mr. Attorney, as I desired, because he was removing from one building to another. And besides, he alleged his note-book was in the country at ——— and so we respited it to some time next week. I think he will rather do me good offices than otherwise, except it be for the township your lordship remembereth by the verse. Thus I commend your honourable lordship to God's good preservation.

Your Lordship's most humble at your hon[ourable] commandment,

FR. BACON.

From Gray's-Inn this 25th of September, 1595.

XXVII. TO THE RIGHT HONOURABLE MY GOOD LORD, THE LORD KEEPER OF THE GREAT SEAL OF ENGLAND.¶

IT MAY PLEASE YOUR GOOD LORDSHIP,

MY not acquainting your lordship hath proceeded of my not knowing any thing, and of my not knowing

* *f.* perfect.

† Harl. MSS. Vol. 6997. No. 37.

‡ Ita MSS.

§ Harl. MSS. Vol. 6997. No. 44.

‖ Harl. MSS. Vol. 6997. No. 59.

¶ Ibid. No. 60.

of my absence at Byssam with my lady Russel, upon some important cause of her son's. And as I have heard nothing, so I look for nothing, though my lord of Essex sent me word, he would not write till his lordship had good news. But his lordship may go on in his affection, which nevertheless myself have desired him to limit. But I do assure your lordship, I can take no farther care for the matter. I am now at Twicknam-Park, where I think to stay: for her Majesty placing a solicitor, my travel shall not need in her causes, though whensoever her Majesty shall like to employ me in any particular, I shall be ready to do her willing service. This I write lest your lordship might think my silence came of any conceit towards your lordship, which, I do assure you, I have not. And this needed I not to do, if I thought not so: for my course will not give me any ordinary occasion to use your favour, whereof nevertheless I shall ever be glad. So I commend your good lordship to God's holy preservation.

Your lordship's humble, &c.

FR. BACON.

This eleventh of October, 1595.

XXVIII. TO THE RIGHT HONOURABLE THE LORD KEEPER, &c.*

It may please your good lordship,

I conceive the end already made, which will, I trust, be to me a beginning of good fortune, or at least of content. Her Majesty by God's grace shall live and reign long, she is not running away, I may trust her. Or whether she look towards me or no, I remain the same, not altered in my intention. If I had been an ambitious man, it would have overthrown me, but minded as I am, "Revertet benedictio mea in sinum meum." If I had made any reckoning of any thing to be stirred, I would have waited on your lordship, and will be at any time ready to wait on you to do you service. So I commend your good lordship to God's holy preservation.

Your lordship's most humble at your hon[ourable] commandment,

FR. BACON.

From Twicknam-Park this 14th of October.

Endorsed:

14*th October* 95.

XXIX. TO THE RIGHT HONOURABLE THE LORD KEEPER, &c.†

My very good lord,

I received a letter from a very friend of mine requesting me to move your lordship, to put into the commission for the subsidy, Mr. Richard Kempe, a reader of Gray's-Inn, and besides born to good estate, being also my friend and familiar acquaintance. And because I conceive the gentleman to be every way sortable with the service, I am bold to commend him to your lordship's good favour. And even so, with remembrance of my most humble duty, I rest,

Your lordship's affectionate to do you humble service,

FR. BACON.

Twicknam-Park,
July 3, 1595.

XXX. TO THE RIGHT HONOURABLE THE LORD KEEPER, &c.‡

My lord,

In my last conference with your lordship, I did entreat you both to forbear hurting of Mr. Fr. Bacon's cause, and to suspend your judgment of his mind towards your lordship, till I had spoken with him. I went since that time to Twicknam-Park to confer with him, and had signified the effect of our conference by letter ere this, if I had not hoped to have met with your lordship, and so to have delivered it by speech. I told your lordship when I last saw you, that this manner of his was only a natural freedom, and plainness, which he had used with me, and in my knowledge with some other of his best friends, than any want of reverence towards your lordship; and therefore I was more curious to look into the moving cause of his style, than into the form of it: which now I find to be only a diffidence of your lordship's favour and love towards him, and no alienation of that dutiful mind which he hath borne towards your lordship. And therefore I am fully persuaded, that if your lordship would please to send for him, there would grow so good satisfaction, as hereafter he should enjoy your lordship's honourable favour, in as great a measure as ever, and your lordship have the use of his service, who, I assure your lordship, is as strong in his kindness, as you find him in his jealousy. I will use no argument to persuade your lordship, that I should be glad of his being restored to your lordship's wonted favour; since your lordship both knoweth how much my credit is engaged in his fortune, and may easily judge how sorry I should be, that a gentleman whom I love so much, should lack the favour of a person whom I honour so much. And thus commending your lordship to God's best protection, I rest,

Your lordship's very assured,

ESSEX.

Endorsed:

31 *August* 95. *My lord of Essex to have me send for Mr. Bacon, for he will satisfy me.* In my Lord Keeper's own hand.

* Harl. MSS. Vol. 6997. No 61.

† Ibid. No. 29.

‡ Ibid. No. 47.

XXXI. TO THE RIGHT HONOURABLE THE LORD KEEPER, &c.*

My very good lord,

The want of assistance from them which should be Mr. Fr. Bacon's friends, makes [me] the more industrious myself, and the more earnest in soliciting mine own friends. Upon me the labour must lie of his establishment, and upon me the disgrace will light of his being refused. Therefore I pray your lordship, now account me not as a solicitor only of my friend's cause, but as a party interested in this: and employ all your lordship's favour to me, or strength for me, in procuring a short and speedy end. For though I know, it will never be carried any other way, yet I hold both my friend and myself disgraced by this protraction. More I would write, but that I know to so honourable and kind a friend, this which I have said is enough. And so I commend your lordship to God's best protection, resting,

At your lordship's commandment,

[No date.] ESSEX.

XXXII. TO MY LORD OF ESSEX, FROM MR. BACON, OCTOBER 4, 1596.†

My singular good lord,

I will no longer dissever part of that, which I meant to have said to your lordship at Barn-Elms, from the *exordium* which I then made; whereunto I will only add this, that I humbly desire your lordship, before you give access to my poor advice, to look about, even jealously a little if you will, and to consider; first, whether I have not reason to think, that your fortune comprehended mine? Next, whether I shift my counsel and do not *constare mihi?* for I am persuaded, there are some would give you the same counsel now which I shall, but that they should derogate from that which they have said heretofore. Thirdly, whether you have taken hurt, at any time, by my careful and devoted counsel; for although I remember well your lordship once told me, that you having submitted upon my well-meant motion at Nonsuch, the place where you renewed a treaty with her Majesty of obsequious kindness, she had taken advantage of it; yet I suppose you do since believe, that it did much attemper a cold malignant humour then growing upon her Majesty toward your lordship, and hath done you good in consequence. And for my being against it, now lately that you should not estrange yourself, although I give place to none in true gratulation; yet neither do I repent me of safe counsel; neither do I judge of the whole play by the first act. But whether I counsel you the best, or for the best, duty bindeth me to offer to you my wishes. I said to your lordship last time, "Martha, Martha, attendis ad plurima, unum sufficit;" win the queen: if this be not the beginning of any other course, I see no end. And I will not now speak of favour of affection, but of other correspondence and agreeableness; which, whensoever it shall be conjoined with the other of affection, I durst wager my life, let them make what *prosopopœias* they will of her Majesty's nature, that in you she will come to the question of "Quid fiet homini, quem rex vult honorare?" But how is it now? A man of a nature not to be ruled, that hath the advantage of my affection, and knoweth it; of an estate not grounded to his greatness; of a popular reputation; of a military dependence. I demand, whether there can be a more dangerous image than this, represented to any monarch living, much more to a lady, and of her Majesty's apprehension? And is it not more evident than demonstration itself, that whilst this impression continueth in her Majesty's breast, you can find no other condition, than inventions to keep your estate bare and low; erossing and disgracing your actions; extenuating and blasting of your merit; earping with contempt at your nature and fashions; breeding, nourishing, and fortifying such instruments as are most factious against you; repulses and scorns of your friends and dependants that are true and stedfast; winning and inveigling away from you such as are flexible and wavering; thrusting you into odious employments and offices to supplant your reputation; abusing you and feeding you with dalliances and demonstrations, to divert you from descending into the serious consideration of your own ease; yea, and perease venturing you in perilous and desperate enterprises. Herein it may please your lordship to understand me; for I mean nothing less, than that these things should be plotted and intended as in her Majesty's royal mind towards you: I know the excellency of her nature too well. But I say, wheresoever the formerly deseribed impression is taken in any king's breast towards a subject, these other recited inconveniences must, of necessity of politic consequence, follow; in respect of such instruments as are never failing about princes; which spy into humours and conceits, and second them: and not only second them, but in seconding increase them; yea, and many times, without their knowledge, pursue them farther than themselves would. Your lordship will ask the question, wherewith the Athenians were wont to interrupt their orators, when they exaggerated their dangers; "Quid igitur agendum est?"

I will tell your lordship "quæ mihi nune in mentem veniunt;" supposing nevertheless, that yourself, out of your own wisdom upon the case, with this plainness and liberty represented to you, will find out better expedients and remedies. I wish a cure applied to every of the five former impressions, which I will take not in order, but as I think they are of weight.

For the removing the impression of your nature to be *opiniastre* and not rulable: first and above all things I wish, that all matters past, which cannot be revoked, your lordship would turn altogether upon insatisfaction, and not upon your nature or proper disposition. This string you eannot upon every apt occasion harp upon too much. Next, whereas I have noted you to fly and avoid, in some

* Harl. MSS. Vol. 6997. No. 106.

† Rawley's Resuscitatio.

respect justly, the resemblance or imitation of my lord of Leicester, and my lord chancellor Hatton; yet I am persuaded, howsoever I wish your lordship as distant as you are from them in points of favour, integrity, magnanimity, and merit, that it will do you much good between the queen and you, to allege them, as oft as you find occasion, for authors and patterns: for I do not know a readier mean to make her Majesty think you are in your right way. Thirdly, when at any time your lordship upon occasion happen in speeches to do her Majesty right, for there is no such matter as flattery amongst you all, I fear you handle it "magis in speciem adornatis verbis, quam ut sentire videaris." So that a man may read formality in your countenance; whereas your lordship should do it familiarly, "et oratione fida." Fourthly, your lordship should never be without some particulars afoot, which you should seem to pursue with earnestness and affection; and then let them fall, upon taking knowledge of her Majesty's opposition and dislike. Of which the weightiest sort may be, if your lordship offer to labour, in the behalf of some that you favour, for some of the places now void; choosing such a subject as you think her Majesty is like to oppose unto: and if you will say that this is "conjunctum eum aliena injuria," I will not answer, "Hæc non aliter constabunt;" but I say, commendation from so good a mouth doth not hurt a man, though you prevail not. A less weighty sort of particulars may be the pretence of some journeys which at her Majesty's request your lordship might relinquish: as if you would pretend a journey to see your living and estate towards Wales, or the like: for as for great foreign journeys of employment and service, it standeth not with your gravity to play or stratagem with them. And the lightest sort of particulars, which yet are not to be neglected, are in your habits, apparel, wearings, gestures, and the like.

The impression of greatest prejudice next is that of a military dependence: wherein I cannot sufficiently wonder at your lordship's course, that you say, the wars are your occupation, and go on in that course: whereas, if I might have advised your lordship, you should have left that person at Plymouth more than when in counsel, or in commending fit persons for service for wars, where it had been in season. And here, my lord, I pray mistake me not: I am not to play now the part of a gown-man, that would frame you best to mine own turn. I know what I owe you. I am infinitely glad of this last journey, now it is past; the rather, because you may make so honourable a full point for a time. You have property good enough in that greatness: there is none can, of many years, ascend near you in competition. Besides, the disposing of the places and affairs both, concerning the wars, you increasing in other greatness, will of themselves flow to you; which will preserve that dependence in full measure. It is a thing that of all things I would have you retain, the times considered, and the necessity of the service; for other reason I know none: yet I say, keep it in substance, but abolish it in shows to the queen; for her Majesty loveth peace. Next, she loveth not charge. Thirdly, that kind of dependence maketh a suspected greatness. Therefore, "quod instat agamus." Let that be a sleeping honour a while, and cure the queen's mind in that point. Therefore, again, whereas I heard your lordship design to yourself the earl marshal's place, or the place of master of the ordnance; I did not in my mind so well like of either, because of their affinity with a martial greatness. But of the places now void, in my judgment and discretion, I would name you to the place of lord privy seal. For first, it is the third person of the great officers of the crown. Next, it hath a kind of superintendence over the secretary. It hath also an affinity with the court of wards, in regard of the fees from the liveries; and it is a fine honour, quiet place, and worth a thousand pounds by year: and my lord admiral's father had it, who was a martial man: and it fits a favourite to carry her Majesty's image in seal, who beareth it best expressed in heart. But my chief reason is, that which I first alleged, to divert her Majesty from this impression of a martial greatness. In concurrence whereof, if your lordship shall not remit any thing of your former diligence at the star-chamber; if you shall continue such intelligences as are worth the cherishing; if you shall pretend to be as bookish and contemplative as ever you were: all these courses have both their advantages and uses in themselves otherwise, and serve exceeding aptly to this purpose. Whereunto I add one expedient more, stronger than all the rest; and, for my own confident opinion, void of any prejudice or danger of diminution of your greatness; and that is, the bringing in of some martial man to be of the council; dealing directly with her Majesty in it, as for her service, and your better assistance; choosing nevertheless some person that may be known, not to come in against you, by any former division. I judge the fittest to be my lord Mountjoy, or my lord Willoughby. And if your lordship see deeplier into it than I do, that you would not have it done in effect; yet in my opinion, you may serve your turn by the pretence of it, and stay it nevertheless.

The third impression is of a popular reputation; which, because it is a thing good in itself, being obtained as your lordship obtaineth it, that is, *bonis artibus*; and besides, well governed, is one of the best flowers of your greatness both present and to come; it would be handled tenderly. The only way is to quench it *verbis* and not *rebus*. And therefore to take all occasions to the queen, to speak against popularity and popular courses vehemently; and to tax it in all others: but, nevertheless, to go on in your honourable commonwealth courses as you do. And therefore, I will not advise you to cure this, by dealing in monopolies, or any oppressions: only, if in parliament your lordship be forward for treasure in respect of the wars, it becometh your person well; and if her Majesty object popularity to you at any time, I would say to her, a parliament will show that; and so feed her with expectation.

The fourth impression, of the inequality between your estate of means, and your greatness of respects, is not to be neglected. For believe it, my lord, that

till her Majesty find you careful of your estate, she will not only think you more like to continue chargeable to her, but also have a conceit that you have higher imaginations. The remedies are, first, to profess it in all speeches to her: next, in such suits wherein both honour, gift, and profit may be taken, to communicate freely with her Majesty, by way of inducing her to grant, that it will be this benefit to you. Lastly, to be plain with your lordship, for the gentlemen are such as I am beholden to, nothing can make the queen, or the world, think so much that you are come to a provident care of your estate, as the altering of some of your officers; who though they be as true to you as one hand to the other, yet *opinio veritate major;* but if, in respect of the bonds they may be entered into for your lordship, you cannot so well dismiss yourself of them, this cannot be done but with time.

For a fifth and last, which is of the advantage of a favourite; as severed from the rest, it cannot hurt; so joined with them, it maketh her Majesty more fearful and shadowy, as not knowing her own strength. The only remedy to this, is to give way to some other favourite, as in particular you shall find her Majesty inclined; so as the subject hath no ill nor dangerous aspect towards yourself. For otherwise, whosoever shall tell me, that you may not have singular use of a favourite at your devotion, I will say he understandeth not the queen's affection, nor your lordship's condition. And so I rest.

October 4, 1596.

XXXIII. TO MY LORD OF ESSEX.*

IT MAY PLEASE YOUR GOOD LORDSHIP,

I PRAY God her Majesty's weighing be not like the weight of a balance; "gravia deorsum, levia sursum." But I am as far from being altered in devotion towards her, as I am from distrust that she will be altered in opinion towards me, when she knoweth me better. For myself, I have lost some opinion, some time, and some means; this is my account: but then for opinion, it is a blast that goeth and cometh; for time, it is true, it goeth and cometh not; but yet I have learned that it may be redeemed.

For means, I value that most; and the rather, because I am purposed, not to follow the practice of the law, if her Majesty command me in any particular, I shall be ready to do her willing service; and my reason is only, because it drinketh too much time, which I have dedicated to better purposes. But even for that point of estate and means, I partly lean to Thales's opinion, That a philosopher may be rich if he will. Thus your lordship seeth how I comfort myself; to the increase whereof I would fain please myself to believe that to be true which my lord treasurer writeth; which is, that it is more than a philosopher can morally digest. But without any such high conceit, I esteem it like the pulling out of an aching tooth, which, I remember, when I was a child, and had little philosophy, I was glad of when it was done. For your lordship, I do think myself more beholden to you than to any man: and I say, I reckon myself as a common, not popular, but common; and as much as is lawful to be enclosed of a common, so much your lordship shall be sure to have.

Your lordship's, to obey your honourable commands, more settled than ever.

* Rawley's Resuscitatio.

XXXIV. TO MY LORD OF ESSEX †

MY SINGULAR GOOD LORD,

YOUR lordship's so honourable minding my poor fortune the last year, in the very entrance into that great action, which is a time of less leisure, and in so liberal an allowance of your care, as to write three letters to stir me up friends in your absence, doth, after a sort, warrant me not to object to myself your present quantity of affairs, whereby to silence myself from petition of the like favour. I brake with your lordship myself at the Tower; and I take it my brother hath since renewed the same motion, touching a fortune I was in thought to attempt, *in genere œconomico. In genere politico,* certain cross winds have blown contrary. My suit to your lordship is for your several letters to be left with me dormant, to the gentlewoman, and either of her parents: wherein I do not doubt, but as the beams of your favour have often dissolved the coldness of my fortune; so in this argument your lordship will do the like with your pen. My desire is also, that your lordship would vouchsafe unto me, as out of your care, a general letter to my lord keeper, for his lordship's holding me from you recommended; both in the course of my practice, and in the course of my employment in her Majesty's service: wherein, if your lordship shall in any *antithesis* or relation affirm, that his lordship shall have no less fruit of me than of any other whom he may cherish, I hope your lordship shall engage yourself for no impossibility. Lastly and chiefly, I know not whether I shall attain to see your lordship before your noble journey; for ceremonies are things infinitely inferior to my love and to my zeal. This let me, with your allowance, say unto you by pen. It is true, that in my well meaning advices, out of my love to your lordship, and perhaps out of the state of mine own mind, I have sometimes persuaded a course differing: "ac tibi pro tutis insignia facta placebunt:" be it so, yet remember, that the signing of your name is nothing, unless it be to some good patent or charter, whereby your country may be endowed with good and benefit. Which I speak, both to move you to preserve your person for farther merit and service of her Majesty and your country, and likewise to refer this action to the same end. And so, in most true and fervent prayers, I commend your lordship, and your work in hand, to the preservation and conduct of the Divine Majesty; so much the more watchful, as these actions

† Ibid.

do more manifestly in show, though alike in truth, depend upon his divine providence.

XXXV. TO SIR JOHN STANHOPE.*

SIR,

YOUR good promises sleep, which it may seem now no time to awake. But that I do not find that any general kalendar of observation of time serveth for the court: and besides, if that be done, which I hope by this time is done; and that other matters shall be done, which we wish may be done, I hope to my poor matter, the one of these great matters may clear the way, and the other give the occasion. And though my lord treasurer be absent, whose health nevertheless will enable him to be sooner at court than is expected; especially if this hard weather, too hard to continue, shall relent; yet we abroad say, his lordship's spirit may be there, though his person be away. Once I take for a good ground, that her Majesty's business ought to keep neither vacation nor holy-day, either in the execution, or in the care and preparation of those whom her Majesty calleth and useth: and therefore I would think no time barred from remembering that, with such discretion and respect as appertaineth. The conclusion shall be, to put you in mind to maintain that which you have kindly begun, according to the reliance I have upon the sincerity of your affection, and the soundness of your judgment. And so I commend you to God's preservation.

XXXVI. TO MY LORD OF ESSEX.†

MY SINGULAR GOOD LORD,

THE message it pleased your lordship to send me, was to me delivered doubtfully. Whether your lordship said you would speak with me at the star-chamber, or with Mr. Philip. If with me, it is needless; for gratitude imposeth upon me satisfaction: if with Mr. Philip, it will be too late; because somewhat must, perchance, be done that day. This doubt not solved, maketh me write again; the rather because I did liberally, but yet privately, affirm your lordship would write; which if I make not good, it may be a discouragement. Your lordship's letter, though it have the subject of honour and justice, yet it shall have the secrecy of a thing done upon affection. I shall ever in a firm duty submit my occasions, though great, to your lordship's respects, though small: and this is my resolution, that when your lordship doth for me, you shall increase my obligation; when you refuse to do for me, you shall increase my merit. So leaving the matter wholly to your lordship's pleasure, I commend your lordship to the preservation of the Divine Majesty.

Your lordship's ever most humbly bounden.

From Gray's-Inn.

* Rawley's Resuscitatio. † Ibid.

XXXVII. TO MY LORD OF ESSEX.‡

MY SINGULAR GOOD LORD,

I MAY perceive, by my lord keeper, that your lordship, as the time served, signified unto him an intention to confer with his lordship at better opportunity; which in regard of your several and weighty occasions, I have thought good to put your lordship in remembrance of; that now at his coming to the court it may be executed: desiring your good lordship, nevertheless, not to conceive out of this my diligence in soliciting this matter, that I am either much in appetite, or much in hope. For as for appetite, the waters of Parnassus are not like the waters of the Spaw, that give a stomach; but rather they quench appetite and desires. And for hope, how can he hope much, that can allege no other reason than the reason of an evil debtor, who will persuade his creditor to lend him new sums, and to enter farther in with him to make him satisfy the old? and to her Majesty no other reason, but the reason of a waterman; I am her first man of those who serve in counsel of law? and so I commit your lordship to God's best preservation.

XXXVIII. TO MY LORD OF ESSEX.§

MOST HONOURABLE, AND MY SINGULAR GOOD LORD.

I CANNOT but importune your lordship, with thanks for your lordship's remembering my name to my lord keeper; which being done in such an article of time, could not but be exceedingly enriched, both in demonstration and effect; which I did well discern by the manner of expressing thereof by his lordship again to me. This accumulating of your lordship's favours upon me hitherto, worketh only this effect; that it raiseth my mind to aspire to be found worthy of them, and likewise to merit and serve you for them. But whether I shall be able to pay my vows or no, I must leave that to God, who hath them *in deposito;* whom also I most instantly beseech to give you fruit of your actions beyond that your heart can propound: "Nam Deus major est corde:" even to the environing of his benedictions I recommend your lordship.

XXXIX. TO THE QUEEN: WRITTEN BY FRANCIS BACON FOR THE EARL OF ESSEX.‖

IT MAY PLEASE YOUR MAJESTY,

IT were great simplicity in me to look for better, than that your Majesty should cast away my letter, as you have done me; were it not that it is possible your Majesty will think to find somewhat in it, whereupon your displeasure may take hold; and so indignation may obtain that of you which favour

‡ Ibid. § Ibid. ‖ Ibid.

could not. Neither might I in reason presume to offer unto your Majesty dead lines, myself being excluded as I am; were it not upon this only argument or subject, namely, to clear myself in point of duty. Duty, though my state lie buried in the sands, and my favours be cast upon the waters, and my honours be committed to the wind, yet standeth surely built upon the rock, and hath been, and ever shall be, unforced and unattempted. And therefore, since the world, out of error, and your Majesty, I fear, out of art, is pleased to put upon me, that I have so much as any election, or will in this my absence from attendance, I cannot but leave this protestation with your Majesty; that I am, and have been merely a patient, and take myself only to obey and execute your Majesty's will. And indeed, Madam, I had never thought it possible that your Majesty could have so disinterested yourself of me; nor that you had been so perfect in the art of forgetting; nor that after a quintessence of wormwood, your Majesty would have taken so large a draught of poppy, as to have passed so many * summers without all feeling of my sufferings. But the only comfort I have is this, that I know your Majesty taketh delight and contentment in executing this disgrace upon me. And since your Majesty can find no other use of me, I am glad yet I can serve for that. Thus making my most humble petition to your Majesty, that in justice, howsoever you may by strangeness untie, or by violence cut asunder all other knots, your Majesty would not touch me in that which is indissoluble: that is, point of duty; and that your Majesty will pardon this my unwarranted presumption of writing, being to such an end: I cease in all humbleness;

Your Majesty's poor, and never so unworthy servant,

ESSEX.

XL. TO SIR ROBERT CECIL.†

Sir,

I forbear not to put in paper, as much as I thought to have spoken to your honour to-day, if I could have stayed; knowing that if your honour should make other use of it, than is due to good meaning, and that I am persuaded you will; yet to persons of judgment, and that know me otherwise, it will rather appear, as it is, a precise honesty, and this same "suum cuique tribuere," than any hollowness to any. It is my luck still to be akin to such things as I neither like in nature, nor would willingly meet with in my course; but yet cannot avoid, without show of base timorousness, or else of unkind or suspicious strangeness . . . . . .

[Some *hiatus* in the copy.]

And I am of one spirit still. I ever liked the Galenists, that deal with good compositions; and not the Paracelsians, that deal with these fine separations: and in music, I ever loved easy airs, that go full all the parts together; and not these strange points of accord and discord. This I write not, I assure your honour, officiously; except it be according to Tully's *Offices;* that is, honestly and morally. For though, I thank God, I account, upon the proceeding, in the queen's service, or not proceeding, both ways; and therefore neither mean to fawn nor retire; yet I naturally desire good opinion with any person which for fortune or spirit is to be regarded: much more with a secretary of the queen's, and a cousin-german, and one with whom I have ever thought myself to have some sympathy of nature, though accidents have not suffered it to appear. Thus not doubting of your honourable interpretation and usage of that I have written, I commend you to the divine preservation.

From Gray's-Inn.

XLI. TO SIR ROBERT CECIL.‡

Sir,

Your honour knoweth, my manner is, though it be not the wisest way, yet taking it for the honestest, to do as Alexander did by his physician, in drinking the medicine, and delivering the advertisement of suspicion: so I trust on, and yet do not smother what I hear. I do assure you, Sir, that by a wise friend of mine, and not factious towards your honour, I was told with asseveration, that your honour was bought by Mr. Coventry for two thousand angels: and that you wrought in a contrary spirit to my lord your father. And he said farther, that from your servants, from your lady, from some counsellors that have observed you in my business, he knew you wrought underhand with me: the truth of which tale I do not believe. You know the event will show, and God will right. But as I reject this report, though the strangeness of my case might make me credulous, so I admit a conceit, that the last messenger my lord and yourself used, dealt ill with your honours; and that word, speculation, which was in the queen's mouth, rebounded from him as a commendation: for I am not ignorant of those little arts. Therefore, I pray, trust not him again in my matter. This was much to write; but I think my fortune will set me at liberty, who am weary of asserviling myself to every man's charity. Thus I, &c.

XLII. TO FOULK GREVIL.§

Sir,

I understand of your pains to have visited me, for which I thank you. My matter is an endless question. I assure you I had said, "Requiesce, anima mea:" but I now am otherwise put to my psalter; "Nolite confidere." I dare go no farther. Her Majesty had, by set speech, more than once assured me of her intention to call me to her ser-

* This shows this letter was wrote before the earl of Essex had been reconciled to the queen; and our author not having been called or advised with for some year and a half before the earl's going to Ireland, determines the date at the latest to the beginning of 1598.

† Hawley's Resuscitatio. ‡ Ibid. § Ibid.

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vice; which I could not understand but of the place I had been named to. And now, whether "invidus homo hoc feeit;" or whether my matter must be an appendix to my lord of Essex's suit; or whether her Majesty, pretending to prove my ability, meaneth but to take advantage of some errors, which like enough, at one time or other, I may commit; or what it is; but her Majesty is not ready to despatch it. And what though the master of the rolls, and my lord of Essex, and yourself, and others, think my ease without doubt, yet in the mean time I have a hard condition to stand so, that whatsoever service I do to her Majesty, it shall be thought but to be "servitium viscatum," lime-twigs and fetches to place myself; and so I shall have envy, not thanks. This is a course to quench all good spirits, and to corrupt every man's nature; which will, I fear, much hurt her Majesty's service in the end. I have been like a piece of stuff bespoken in the shop; and if her Majesty will not take me, it may be the selling by parcels will be more gainful. For to be, as I told you, like a child following a bird, which, when he is nearest flieth away, and lighteth a little before, and then the child after it again, and so in *infinitum*; I am weary of it, as also of wearying my good friends: of whom, nevertheless, I hope in one course or other gratefully to deserve. And so, not forgetting your business, I leave to trouble you with this idle letter, being but "jostæ et moderata querimoniæ:" for indeed I do confess, *primus amor* will not easily be cast off. And thus again I commend me to you.

XLIII. TO MY LORD OF ESSEX.*

IT MAY PLEASE YOUR GOOD LORDSHIP,

I AM very sorry her Majesty should take my motion to travel in offence. But surely under her Majesty's royal correction, it is such an offence as it should be an offence to the sun, when a man, to avoid the scorching heat thereof, flieth into the shade. And your lordship may easily think, that having now these twenty years, for so long it is, and more, since I went with Sir † Amyas Paulet into France, from her Majesty's royal hand, made her Majesty's service the scope of my life; I shall never find a greater grief than this, *relinquere amorem primum*. But since *principia actionum sunt tantum in nostra potestate*, I hope her Majesty of her clemency, yea and justice, will pardon me, and not force me to pine here with melancholy. For though mine heart be good, yet mine eyes will be sore; so as I shall have no pleasure to look abroad: and if I should otherwise be affected, her Majesty in her wisdom will but think me an impudent man, that would face out a disgrace. Therefore, as I have ever found you my good lord and true friend, so I pray open the matter so to her Majesty, as she may discern the necessity of it without adding hard conceit to her rejection; of which, I am sure, the latter I never deserved. Thus, &c.

* Rawley's Resuscitatio.
† This letter was therefore wrote about the year 1598.

XLIV. TO SIR ROBERT CECIL, AT HIS BEING IN FRANCE.‡

IT MAY PLEASE YOUR HONOURABLE LORDSHIP,

I KNOW you will pardon this my observance in writing to you, empty of matter, but out of the fulness of my love. I am sorry that as your time of absence is prolonged, above that was esteemed at your lordship's setting forth; so now, upon this last advertisement received from you, there groweth an opinion amongst better than the vulgar, that the difficulties also of your negotiation are increased. But because I know the gravity of your nature to be not to hope lightly, it maketh me to despair the less. For you are *natus ad ardua:* and the indisposition of the subject may honour the skill of the workman. Sure I am, judgment and diligence shall not want in your lordship's self: but this was not my purpose; being only to signify unto your lordship my continual and incessant love towards you, thirsting after your return, for many respects. So I commend you ever to the good preservation of the Divine Majesty.

At your honour's commandment ever and particularly.

Gray's Inn, 1598.

‡ Rawley's Resuscitatio.

XLIV. TO SIR ROBERT CECIL.§

MY SINGULAR GOOD LORD,

THE argument of my letters to your lordship rather increaseth than spendeth; it being only the desire I have to salute you; which by your absence is more augmented than abated. For me to write to your lordship occurrences, either of Scottish brags, or Irish plaints, or Spanish ruffling, or Low-Country states, were, besides that it is *alienum quiddam* from mine own humour, to forget to whom I write; save that you, that know true advertisements, sometimes desire and delight to hear common reports, as we that know but common reports desire to hear the truth. But to leave such as write to your fortunes, I write to yourself, in regard of my love to you, you being as near to me in heart's blood, as in blood of descent. ‖ This day I had the contentment to see your father, upon occasion: and methought his lordship's countenance was not decayed, nor his cough vehement; but his voice was as faint all the while as at first. Thus wishing your lordship a happy and speedy return, I commend you to the Divine Majesty.

§ Ibid.

XLVI. A LETTER OF ADVICE TO THE EARL OF ESSEX, TO TAKE UPON HIM THE CARE OF IRISH CAUSES, WHEN MR. SECRETARY CECIL WAS IN FRANCE. 1598.¶

MY SINGULAR GOOD LORD,

I DO write, because I had no time fully to express

‖ This seems to be written 1598, the time of lord Burghley's last sickness.
¶ Rawley's Resuscitatio.

my conceit to your lordship touching Irish affairs, considering them as they may concern your lordship; knowing that you will consider them as they may concern the state. That it is one of the aptest particulars that hath come, or can come upon the stage for your lordship to purchase honour upon, I am moved to think for three reasons: because it is ingenerate, in your house, in respect of my lord your father's noble attempts: because of all the actions of state on foot at this time, the labour resteth most in that particular: and because the world will make a kind of comparison, between those that set it out of frame and those that bring it into frame: which kind of honour giveth the quickest kind of reflection. The transferring this honour upon yourself consisteth in two points: the one, if the principal person employed come in by you and depend upon you; the other, if your lordship declare yourself, and profess to undertake a care of that kingdom. For the persons, it falleth out well that your lordship hath had no interest in the persons of imputation: for neither Sir William Fitz-Williams, nor Sir John Norris, was yours. Sir William Russel was conceived yours, but was curbed. Sir Coniers Clifford, as I conceive it, dependeth on you, who is said to do well. And if my lord of Ormond, in this interim, doth accommodate things well, as it is said he doth, I take it he hath always had good understanding with your lordship; so as all things hitherto are not only whole and entire, but of favourable aspect towards your lordship, if hereafter you choose well: wherein in your wisdom you will remember there is a great difference in choice of the persons, as you shall think the affairs to incline to composition or to war. Concerning the care of business, the general and popular conceit hath been, that Irish causes have been much neglected; whereby the very reputation of better care will put life into them. And I am sure her Majesty, and my lords of the council, do not think their care dissolved when they have chosen whom to employ: but that they will proceed in a spirit of state, and not leave the main point to discretion. Then if a resolution be taken, a consultation must proceed; and the consultation must be governed upon information to be had from such as know the place, and matters in fact: and in taking of information I have always noted there is a skill and a wisdom. But for a beginning and a key to that which shall follow, it were good your lordship would have some large and serious conference with Sir William Russel, Sir Richard Bingham, the earl of Thomond, and Mr. Wilbraham; to know their relation of the past; their opinion of the present; and their advice for the future. But I am of opinion much more would be had of them, if your lordship shall be pleased severally to confer; not *obiter*, but expressly upon some caveat given them to think of it before; for *bene docet qui prudenter interrogat*.

For the points of apposing them, I am too much a stranger to the business to deduce them; but in a general topic, methinks the pertinent interrogations must be; either of the possibility and means of accord; or of the nature of the war; or of the reformation of abuses; or of the joining of practice with force in the disunion of the rebels. If your lordship doubt to put your sickle into another's harvest, yet consider you have these advantages: first, time brings it to you in Mr. Secretary's absence: next, *vis unita fortior*: thirdly, the business being mixed with matters of war, it is fittest for you: and lastly, I know your lordship will carry it with that modesty and respect towards aged dignity, and that good correspondence towards my dear kinsman and your good friend now abroad, as no inconvenience may grow that way.

Thus have I played the ignorant statesman; which I do to nobody but your lordship; except I do it to the queen sometimes when she trains me on. But your lordship will accept my duty and good meaning, and secure me touching the privateness of that I write.

XLVII. A LETTER OF ADVICE TO THE EARL OF ESSEX, UPON THE FIRST TREATY WITH TYRONE 1598, BEFORE THE EARL WAS NOMINATED FOR THE CHARGE OF IRELAND.*

MY VERY GOOD LORD,

CONCERNING the advertisements, which your lordship imparted to me, touching the state of Ireland, I hold them to be no more certain to make judgment upon, than a patient's water to a physician: therefore for me upon one water to make a judgment, were indeed like a foolish bold mountebank, or Dr. Birket: yet for willing duty's sake, I will set down to your lordship what opinion sprang in my mind upon that I read.

The letter from the council there, leaning to mistrust and dissuade the treaty, I do not much rely on, for three causes. First, because it is always the grace, and the safety from blame, of such a council, to err in caution: whereunto add, that it may be, they, or some of them, are not without envy towards the person who is used in treating the accord. Next, because the time of this treaty hath no show of dissimulation; for that Tyrone is now in no straits: but he is more like a gamester that will give over because he is a winner, than because he hath no more money in his purse. Lastly, I do not see but those articles, whereupon they ground their suspicion, may as well proceed out of fear, as out of falsehood. For the retaining the dependence of the Vraights, the protracting the admission of a sheriff, the refusing to give his son for an hostage, the holding off from present repair to Dublin, the refusing to go presently to accord, without including Odonnell, and other his associates, may very well come of an apprehension in case he should receive hard measure; and not out of treachery: so as if the great person you write of be faithful, and that you have not heard some present intelligence of present succours from Spain, for the expectation whereof Tyrone would win time, I see no deep cause of distrusting this course of treaty, if the main conditions

* Rawley's Resuscitatio.

may be good. For her Majesty seemeth to me to be a winner thereby three ways: first, her purse shall have some rest: next, it will divert the foreign designs upon the place: thirdly, though her Majesty be like for a time to govern but *precario* in the north, and be not, as to a true command, in better state there than before; yet, besides the two respects of ease of charge, and advantage of opinion abroad, before mentioned, she shall have time to use her princely policy in two points to weaken them: the one, by division and the disunion of the heads; the other, by recovering and winning the people from them by justice: which of all other courses is the best.

Now for the Athenian question: you discourse well; "Quid igitur agendum est?" I will shoot my fool's bolt, since you will have it so. The earl of Ormond to be encouraged and comforted. Above all things, the garrisons to be instantly provided for. For opportunity maketh a thief: and if he should mean never so well now, yet such an advantage as the breaking of her Majesty's garrisons might tempt a true man.

And because he may as well waver upon his own inconstancy as upon occasion, and wanton variableness is never restrained but by fear, I hold it necessary to be menaced with a strong war: not by words, but by musters and preparations of forces here, in case the accord proceed not: but none to be sent over, lest it disturb the treaty, and make him look to be overrun as soon as he hath laid away arms. And, but that your lordship is too easy to pass in such cases from dissimulation to verity, I think if your lordship lent your reputation in this case; that is, to pretend, that if peace go not on, and the queen mean to make, not a defensive war as in times past, but a full re-conquest of those parts of the country, you would accept the charge; I think it would help to settle Tyrone in his seeking accord, and win you a great deal of honour gratis.

And that which most properly concerns this action, if it prove a peace, I think her Majesty shall do well to cure the root of the disease; and to profess, by a commission of peaceable men, chiefly of respect and countenance, reformation of abuses, extortions, and injustices there; and to plant a stronger and surer government than heretofore, for the ease and protection of the subject. For the removing of the sword or government in arms from the earl of Ormond, or the sending of the deputy, which will eclipse it, if peace follow, I think it unseasonable.

Lastly, I hold still my opinion, both for your better information, and the fuller declaration of your care, in meddling in this urgent and meriting service, that your lordship have a set conference with the persons I named in my former letter.

XLVIII. A LETTER OF ADVICE TO MY LORD OF ESSEX, IMMEDIATELY BEFORE HIS GOING INTO IRELAND. 1599.*

MY SINGULAR GOOD LORD,

† YOUR late note of my silence in your occasions hath made me set down these few wandering lines, as one that would say somewhat, and can say nothing, touching your lordship's intended charge for Ireland: which my endeavour I know your lordship will accept graciously and well; whether your lordship take it by the handle of the occasion ministered from yourself, or of the affection from which it proceeds.

Your lordship is designed to a service of great merit and great peril; and as the greatness of the peril must needs include a like proportion of merit; so the greatness of the merit may include no small consequence of peril, if it be not temperately governed. For all immoderate success extinguisheth merit, and stirreth up distaste and envy; the assured forerunners of whole charges of peril. But I am at the last point first, some good spirit leading my pen to presage to your lordship success; wherein, it is true, I am not without my oracles and divinations; none of them superstitious, and yet not all natural. For first, looking into the course of God's providence in things now depending, and calling to consideration, how great things God hath done by her Majesty and for her; I collect he hath disposed of this great defection in Ireland, thereby to give an urgent occasion to the reduction of that whole kingdom; as upon the rebellion of Desmond there ensued the reduction of that whole province.

Next, your lordship goeth against three of the unluckiest vices of all others, disloyalty, ingratitude, and insolency; which three offences, in all examples, have seldom their doom adjourned to the world to come.

Lastly, he that shall have had the honour to know your lordship inwardly, as I have had, shall find *bona exta*, whereby he may better ground a divination of good, than upon the dissection of a sacrifice. But that part I leave; for it is fit for others to be confident upon you, and you to be confident upon the cause: the goodness and justice whereof is such as can hardly be matched in any example; it being no ambitious war against foreigners, but a recovery of subjects; and that after lenity of conditions often tried; and a recovery of them not only to obedience, but to humanity and policy, from more than Indian barbarism.

There is yet another kind of divination, familiar to matters of state; being that which Demosthenes so often relied upon in his time; when he said, That which for the time past is worst of all, is for the time to come the best: which is, that things go ill, not by accident, but by errors; wherein, if your lordship have been heretofore an awaking censor, yet you must look for no other now, but "Medice, cura teipsum:" and though you shall not be the happy physician that cometh in the declination of the disease; yet you embrace that condition which many noble spirits have accepted for advantage; which is, that you go upon the greater peril of your fortune, and the less of your reputation; and so the honour countervaileth the adventure; of which honour your lordship is in no small possession, when that her Majesty, known to be one of the most

* Rawley's Resuscitatio. † Our author observes, "I was not called or advised with some year and a half before his lordship's [namely, the earl of Essex's] going into Ireland," which explains this passage. *Apology*, p. 435.

judicious princes in discerning of spirits that ever governed, hath made choice of you, merely out of her royal judgment; her affection inclining rather to continue your attendance, into whose hand, and trust, to put the command and conduct of so great forces; the gathering the fruit of so great charge; the execution of so many counsels; the redeeming of the defaults of so many former governors; the clearing of the glory of her so many happy years' reign, only in this part eclipsed. Nay farther, how far forth the peril of that state is interlaced with the peril of England; and therefore how great the honour is, to keep and defend the approaches or avenues of this kingdom, I hear many discourse; and there is a great difference, whether the tortoise gathereth herself within her shell hurt or unhurt.

And if any man be of opinion, that the nature of the enemy doth extenuate the honour of the service, being but a rebel and a savage, I differ from him; for I see the justest triumph that the Romans in their greatness did obtain, and that whereof the emperors in their styles took addition and denomination, were of such an enemy as this; that is, people barbarous, and not reduced to civility, magnifying a kind of lawless liberty, and prodigal of life, hardened in body, fortified in woods and bogs, and placing both justice and felicity in the sharpness of their swords; such were the Germans and ancient Britons, and divers others. Upon which kind of people, whether the victory were a conquest, or a reconquest upon a rebellion or a revolt, it made no difference, that ever I could find, in honour. And therefore it is not the enriching predatory war that hath the pre-eminence in honour, else should it be more honour to bring in a carrack of rich burden, than one of the twelve Spanish apostles. But then this nature of people doth yield a higher point of honour, considered in truth, and substance, than any war can yield which should be achieved against a civil enemy; if the end may be "pacisque imponere morem," to replant and refound the policy of that nation; to which nothing is wanting, but a just and civil government; which design, as it doth descend unto you from your noble father, who lost his life in that action, though he paid tribute to nature, and not to fortune; so I hope your lordship shall be as fatal a captain to this war, as Africanus was to the war of Carthage, after that both his uncle and father had lost their lives in Spain in the same war. Now although it be true, that these things which I write, being but representations unto your lordship of the honour and appearance of the success of the enterprise, be not much to the purpose of any advice; yet it is that which is left to me, being no man of war, and ignorant in the particulars of estate. For a man may, by the eye, set up the white in the midst of the butt, though he be no archer. Therefore I will only add this wish, according to the English phrase, which termeth a well-willing adviee, a wish; that your lordship in this whole action, looking forward, would set down this position; That merit is worthier than fame; and looking back hither would remember this text, That obedience is better than sacrifice. For designing to fame and glory may make your lordship in the adventure of your person to be valiant as a private soldier, rather than as a general: it may make you in your commandments rather to be gracious than disciplinary: it may make you press action, in respect of the great expectation conceived, rather hastily than seasonably and safely: it may make you seek rather to achieve the war by force, than by intermixture of practice: it may make you, if God shall send prosperous beginnings, rather seek the fruition of that honour, than the perfection of the work in hand. And for the other point, that is, the proceeding, like a good protestant, upon express warrant, and not upon good intention, your lordship in your wisdom knoweth that as it is most fit for you to desire convenient liberty of instructions, so it is no less fit for you to observe the due limits of them; remembering that the exceeding of them may not only procure, in case of adverse accident, a dangerous disavow; but also, in case of prosperous success, be subject to interpretation, as if all were not referred to the right end.

Thus have I presumed to write these few lines to your lordship, *in methodo ignorantiæ;* which is, when a man speaketh of any subject, not according to the parts of the matter, but according to the model of his own knowledge; and most humbly desire your lordship that the weakness thereof may be supplied in your lordship by a benign acceptation, as it is in me by my best wishing.

XLIX. TO MY LORD OF ESSEX.*

My lord,

Conceiving that your lordship came now up in the person of a good servant to see your sovereign mistress; which kind of compliments are many times "instar magnorum meritorum;" and therefore that it would be hard for me to find you: I have committed to this poor paper the humble salutations of him that is more yours than any man's; and more yours than any man. To these salutations I add a due and joyful gratulation, confessing that your lordship, in your last conference with me before your journey, spake not in vain, God making it good; that you trusted, we should say, "Quis putasset?" Which, as it is found true in a happy sense, so I wish you do not find another "Quis putasset?" in the manner of taking this so great a service. But I hope it is as he said, "Nubecula est, cito transibit:" and that your lordship's wisdom, and obsequious circumspection, and patience, will turn all to the best. So referring all to some time that I may attend you, I commit you to God's best preservation.

L. A LETTER TO THE EARL OF ESSEX, IN OFFER OF HIS SERVICE WHEN HE WAS FIRST ENLARGED TO ESSEX-HOUSE.†

My lord,

No man can expound my doings better than your

* Rawley's Resuscitatio. † Ibid.

lordship, which makes me need to say the less; only I humbly pray you to believe, that I aspire to the conscience and commendation of "bonus civis," and "bonus vir;" and that though I love some things better, I confess, than I love your lordship, yet I love few persons better; both for gratitude's sake, and for your virtues, which cannot hurt but by accident; of which my good affection it may please your lordship to assure yourself; and of all the true effect and offices I can yield. For as I was ever sorry your lordship should fly with waxen wings, doubting Icarus's fortune, so for the growing up of your own feathers, be they ostrich's or other kind, no man shall be more glad. And this is the axle-tree whereon I have turned and shall turn. Which having already signified to you by some near mean, having so fit a messenger for mine own letter, I thought good also to redouble by writing. And so I commend you to God's protection.

From Gray's-Inn this *
9th day of July, 1600.

LI. AN ANSWER OF MY LORD OF ESSEX, TO THE PRECEDING LETTER OF MR. BACON.†

MR. BACON,

I CAN neither expound nor censure your late actions; being ignorant of all of them save one; and having directed my sight inward only to examine myself. You do pray me to believe, that you only aspire to the conscience and commendation of "bonus civis," and "bonus vir;" and I do faithfully assure you, that while that is your ambition, though your course be active, and mind contemplative, yet we shall both "convenire in eodem tertio;" and "convenire inter nos ipsos." Your profession of affection, and offer of good offices, are welcome to me; for answer to them I will say but this; that you have believed I have been kind to you, and you may believe that I cannot be other, either upon humour or mine own election. I am a stranger to all poetical conceits, or else I should say somewhat of your poetical example. But this I must say, that I never flew with other wings than desire to merit, and confidence in my sovereign's favour; and when one of these wings failed me, I would light no where but at my sovereign's feet, though she suffered me to be bruised with my fall. And till her Majesty, that knows I was never bird of prey, finds it to agree with her will and her service that my wings should be imped again, I have committed myself to the mue. No power but my God's, and my sovereign's, can alter this resolution of

Your retired friend,

ESSEX.

LII. TO MY LORD OF ESSEX.‡

MY LORD,

I AM glad your lordship hath plunged out of your own business: wherein I must commend your lordship, as Xenophon commended the state of his country, which was this, that having chosen the worst form of government of all others, they governed the best in that kind. "Hoc pace et venia tua," according to my charter. Now, as your lordship is my witness that I would not trouble you whilst your own cause was in hand, though that I know, that the farther from the term, the better the time was to deal for me, so that being concluded, I presume I shall be one of your next cares. And having communicated with my brother of some course, either to perfect the first, or to make me some other way; or rather, by seeming to make me some other way to perfect the first; wherewith he agreed to acquaint your lordship; I am desirous, for mine own better satisfaction, to speak with your lordship myself: which I had rather were somewhere else than at court; and as soon as your lordship will assign me to wait on you. And so in, &c.

LIII. TO MY LORD OF ESSEX.§

IT MAY PLEASE YOUR LORDSHIP,

THAT your lordship is *in statu quo prius*, no man taketh greater gladness than I do: the rather, because I assure myself that of your eclipses, as this hath been the longest, it shall be the least; as the comical poet saith "Neque illam tu satis noveras, neque te illa; hocque fit, ubi non vere vivitur."‖ For if I may be so bold as to say what I think, I believe neither your lordship looked to have found her Majesty in all points as you have done, neither her Majesty *per* case looked to have found your lordship as she hath done. And therefore I hope upon this experience may grow more perfect knowledge, and upon knowledge more true consent; which I, for my part, do infinitely wish, as accounting these accidents to be like the fish remora; which though it be not great, yet hath it a hidden property to hinder the sailing of the ship. And therefore, as bearing unto your lordship, after her Majesty, of all public persons, the second duty, I could not but signify unto you my affectionate gratulation. And so I commend your good lordship to the best preservation of the Divine Majesty.

From Gray's-Inn.

LIV. TO SIR ROBERT CECIL.¶

IT MAY PLEASE YOUR GOOD HONOUR,

I AM apt enough to contemn *mendacia famæ*, yet it is with this distinction, as fame walks among inferiors, and not as it hath entrance into some ears.

* 19 Jul. *Cab.* † Rawley's Resuscitatio. ‡ Ibid. § Ibid. ‖ Terent. Heaut. I. 1. ¶ Rawley's Resuscitatio.

And yet nevertheless, in that kind also I intend to avoid a suspicious silence, but not to make any base apology. It is blown about the town, that I should give opinion touching my lord of Essex's cause; first, that it was a *præmunire;* and now last, that it reached to high treason; and this opinion should be given in opposition to the opinion of the lord chief justice, and of Mr. Attorney-General. Sir, I thank God, whatsoever opinion my head serveth me to deliver to her Majesty, being asked, my heart serveth me to maintain, the same honest duty directing me and assisting me. But the utter untruth of this report God and the queen can witness; and the improbability of it, every man that hath wit, more or less, can conceive. The root of this I discern to be not so much a light and humourous envy at my accesses to her Majesty, which of her Majesty's grace being begun in my first years, I would be sorry she should estrange in my last years; for so I account them, reckoning by health not by age; as a deep malice to your honourable self; upon whom, by me, through nearness, they think to make some aspersion. But as I know no remedy against libels and lies; so I hope it shall make no manner of disseverance of your honourable good conceits and affection towards me; which is the thing I confess to fear. For as for any violence to be offered to me, wherewith my friends tell me, to no small terror, that I am threatened, I thank God I have the privy coat of a good conscience; and have a good while since put off any fearful care of life, or the accidents of life. So desiring to be preserved in your good opinion, I remain.

This last letter seems to be wrote 1600, in the interval between the return of the earl of Essex from Ireland, and his hearing before the lord chancellor, &c.

LV. TO MY LORD HENRY HOWARD.*

My lord,

There be very few besides yourself, to whom I would perform this respect. For I contemn *mendacia famæ*, as it walks among inferiors; though I neglect it not, as it may have entrance into some ears. For your lordship's love, rooted upon good opinion, I esteem it highly, because I have tasted the fruits of it; and we both have tasted of the best waters, in my account, to knit minds together. There is shaped a tale in London's forge, that beateth apace at this time, that I should deliver opinion to the queen in my lord of Essex's cause: first, that it was a *præmunire;* and now last, that it was high treason; and this opinion to be in opposition and encounter of the lord chief justice's opinion and the attorney-general's. My lord, I thank God, my wit serveth me not to deliver any opinion to the queen, which my stomach serveth me not to maintain; one and the same conscience of duty guiding me and fortifying me. But the untruth of this fable God and my sovereign can witness, and there I leave it; knowing no more remedy against lies, than others do against libels. The root, no question of it, is partly some light-headed envy at my accesses to her Majesty; which being begun and continued since my childhood, as long as her Majesty shall think me worthy of them, I scorn those that shall think the contrary: and another reason is the aspersion of this tale, and the envy thereof, upon some greater man, in regard of my nearness. And therefore, my lord, I pray you answer for me, to any person that you think worthy your own reply, and my defence. For my lord of Essex, I am not servile to him, having regard to my superior's duty. I have been much bound unto him. And on the other side, I have spent more time and more thoughts about his well doing, than ever I did about mine own. I pray God, you his friends, amongst you, be in the right. "Nulla remedia tam faciunt dolorem, quam quæ sunt salutaria." For my part, I have deserved better, than to have my name objected to envy, or my life to a ruffian's violence. But I have the privy coat of a good conscience. I am sure these courses and bruits hurt my lord more than all. So having written to your lordship, I desire exceedingly to be preferred in your good opinion and love: and so leave you to God's goodness.

3 December 1599.

* Rawley's Resuscitatio.

LVI. TWO LETTERS, FRAMED, THE ONE AS FROM MR. ANTHONY BACON, TO THE EARL OF ESSEX; THE OTHER, AS THE EARL'S ANSWER THEREUNTO:†

Both written by Mr. Francis Bacon, at the instance of Mr Anthony Bacon his brother, and to be showed to the queen, upon some fit occasion; as a mean to work her Majesty to receive the earl again to favour and attendance at court. They were devised whilst my lord remained prisoner in his own house. See Sir Francis Bacon's *Apology* to the earl of Devonshire.

My singular good lord,

This standing at a stay in your lordship's fortunes doth make me, in my love towards your lordship, jealous lest you do somewhat, or omit somewhat, that amounteth to a new error. For I suppose that of all former matters there is a full expiation; wherein, for any thing that your lordship doth, I for my part, who am remote, cannot cast nor devise wherein any error should be, except in one point, which I dare not censure nor dissuade; which is, that as the prophet saith, in this affliction you look up "ad manum percutientem," and so make your peace with God. And yet I have heard it noted, that my lord of Leicester, who could never get to be taken for a saint, nevertheless in the queen's disfavour waxed seeming religious: which may be thought by some, and used by others, as a case resembling yours, if men do not see, or will not see the difference between your two dispositions. But to be plain with your lordship, my fear rather is, because I hear how some of your good and wise friends, not unpractised in the court, and supposing them-

† Ibid.

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selves not to be unseen in that deep and unscrutable centre of the court, which is her Majesty's mind, do not only toll the bell, but even ring out peals, as if your fortune were dead and buried, and as if there were no possibility of recovering her Majesty's favour; and as if the best of your condition were to live a private and retired life, out of want, out of peril and out of manifest disgrace; and so in this persuasion of their's include a persuasion to your lordship to frame and accommodate your actions and mind to that end: I fear, I say, that this untimely despair may in time bring forth a just despair, by causing your lordship to slacken and break off your wise, loyal, and seasonable endeavours and industry for redintegration to her Majesty's favour; in comparison whereof all other circumstances are but as *atomi*, or rather as a *vacuum* without any substance at all. Against this opinion it may please your lordship to consider of these reasons which I have collected, and to make judgment of them, neither out of the melancholy of your present fortune, nor out of the infusion of that which cometh to you by others' relation, which is subject to much tincture, but *ex rebus ipsis*, out of the nature of the persons and actions themselves, as the truest and least deceiving grounds of opinion. For though I am so unfortunate as to be a stranger to her Majesty's eye, and much more to her nature and manners; yet by that which is apparent, I do manifestly discern, that she hath that character of the divine nature and goodness, "quos amavit, amavit usque ad finem;" and where she hath a creature, she doth not deface nor defeat it; insomuch as, if I observe rightly in those persons whom heretofore she hath honoured with her special favour, she hath covered and remitted not only defects and ingratitudes in affection, but errors in state and service. Secondly, if I can spell and scholar-like put together the parts of her Majesty's proceedings now towards your lordship, I cannot but make this construction, that her Majesty in her royal intention never purposed to call your lordship's doings into public question; but only to have used a cloud without a shower, in censuring them by some temporary restraint only of liberty, and debarring from her presence. For, first, the handling the cause in the star-chamber, you not being called, was enforced by the violence of libelling and rumours, wherein the queen thought to have satisfied the world, and yet spared your lordship's appearance; and after, when that means which was intended for the quenching of malicious bruits, turned to kindle them, because it was said your lordship was condemned unheard, and your lordship's sister wrote that piquant letter, then her Majesty saw plainly, that these winds of rumours could not be commanded down without a handling of the cause, by making you a party, and admitting your defence. And to this purpose I do assure your lordship, that my brother Francis Bacon, who is too wise, I think, to be abused, and too honest to abuse; though he be more reserved in all particulars than is needful, yet in generality he hath ever constantly and with asseveration affirmed to me, that both those days, that of the star-chamber, and that at my lord keeper's, were won from the queen merely upon necessity and point of honour, against her own inclination. Thirdly, in the last proceeding, I note three points, which are directly significant, that her Majesty did expressly forbear any point which was *irreparable, or might make your lordship in any degree uncapable of the return of her favour; or might fix any character indelible of disgrace upon you: for she spared the public place of the star-chamber, which spared ignominy; she limited the charge precisely not to touch upon any pretence of disloyalty; and no record remaineth to memory of the charge or sentence. Fourthly, the very distinction which was made in the sentence of sequestration from the places of service in state, and leaving to your lordship the place of master of the horse, doth, to my understanding, *indicativè*, point at this; that her Majesty meant to use your lordship's attendance in court, while the exercises of the other places stood suspended. Fifthly, I have heard, and your lordship knoweth better than I, that now, since you were in your own custody, her Majesty in *verbo regio*, and by his month, to whom she committeth her royal grants and decrees, hath assured your lordship she will forbid, and not suffer, your ruin. Sixthly, as I have heard her Majesty to be a prince of that magnanimity, that she will spare the service of the ablest subject or peer, when she shall be thought to stand in need of it; so she is of that policy, as she will not lose the service of a meaner than your lordship, where it shall depend merely upon her choice and will. Seventhly, I hold it for a principle, that generally those diseases are hardest to cure whereof the cause is obscure; and those easiest, whereof the cause is manifest: whereupon I conclude, that since it hath been your error in your courses towards her Majesty, which hath prejudiced you, that your reforming and conformity will restore you; so as you may be *faber fortunæ propriæ*. Lastly, considering your lordship is removed from dealing in causes of state, and left only to a place of attendance; methinks the ambition of any man, who can endure no partners in state matters, may be so quenched, as they should not laboriously oppose themselves to your being in court: so as upon the whole matter, I can find neither in her Majesty's person, nor in your own person, nor in any third person, neither in former precedents, nor in your own case, any cause of dry and peremptory despair. Neither do I speak this so, but that, if her Majesty, out of her resolution, should design you to a private life, you should be as willing, upon her appointment, to go into the wilderness, as into the land of promise. Only I wish your lordship will not preoccupate despair, but put trust, next to God, in her Majesty's grace, and not to be wanting to yourself. I know your lordship may justly interpret, that this which I persuade, may have some reference to my particular, because I may truly say, *Te stante*, not *virebo*, for I am withered in myself, but *manebo*, or *tenebo;* I shall in some sort be, or hold out. But though your lordship's years and health may expect return of grace and fortune; yet your eclipse for a time is an *ultimum vale* to my

* Irrecuperable, *Cab.*

BIBLIOTECA NAZ. ROMA VITTORIO EMANUELE

fortune; and were it not that I desire and hope to see my brother established, by her Majesty's favour, as I think him well worthy, for that he hath done and suffered, it were time I did take that course, from which I dissuade your lordship. But now in the mean time, I cannot choose but perform these honest duties to you, to whom I have been so deeply bounden.

LVII. A LETTER FRAMED AS FROM THE EARL IN ANSWER TO THE FORMER LETTER.*

Mr. Bacon,

I THANK you for your kind and careful letter. It persuades me to that which I wish strongly, and hope for weakly; that is, possibility of restitution to her Majesty's favour; but your arguments that would cherish hope turn to despair. You say the queen never meant to call me to public censure, which showeth her goodness; but you see I passed under it, which showeth others' power. I believe most stedfastly her Majesty never intended to bring my cause to a sentence; and I believe as verily, that since that sentence she meant to restore me to attend upon her person. But they that could use occasions, which was not in me to let, and amplify occasions, and practise upon occasions, to represent to her Majesty a necessity to bring me to the one, can and will do the like to stop me from the other. You say, my errors were my prejudice, and therefore I can mend myself: it is true; but they that know that I can mend myself, and that if ever I recover the queen, that I will never lose her again; will never suffer me to obtain interest in her favour. And you say the queen never forsook utterly, where she inwardly favoured: but I know not whether the hour-glass of time hath altered her mind; but sure I am the false glass of others' informations must alter her, when I want access to plead my own cause. I know I ought doubly to be her Majesty's; both *jure creationis*, for I am her creature; and *jure redemptionis*, for I know she hath saved me from overthrow. But for her first love, and for her last protection, and all her great benefits, I can but pray for her Majesty: and my endeavours are now to make my prayers for her Majesty and myself better heard. For, thanks be to God, they that can make her Majesty believe I counterfeit with her, cannot make God believe that I counterfeit with him; and they which can let me from coming near unto her, cannot let me from drawing near unto him, as I hope I do daily. For your brother, I hold him an honest gentleman, and wish him all good, much rather for your sake. Yourself I know hath suffered more for me and with me than any friend I have: yet I cannot but lament freely, as you see I do; and advise you not to do that which I do, which is to despair. You know letters what hurt they have done me, and therefore make sure of this: and yet I could not, as having no other pledge of my love, but communicate freely with you, for the ease of my heart and yours.

* Rawley's Resuscitatio.
† Therefore this was wrote, 1603

LVIII. A LETTER TO MR. SECRETARY CECIL, AFTER THE †DEFEATING OF THE SPANISH FORCES IN IRELAND; INCITING HIM TO EMBRACE THE CARE OF REDUCING THAT KINGDOM TO CIVILITY, WITH SOME REASONS ENCLOSED.‡

IT MAY PLEASE YOUR HONOUR,

As one that wisheth you all increase of honour; and as one that cannot leave to love the state, what interest soever I have, or may come to have in it; and as one that now this dead vacation time hath some leisure *ad aliud agendum*; I will presume to propound unto you that which though you cannot but see, yet I know not whether you apprehend and esteem it in so high a degree; that is, for the best action of importation to yourself, of sound honour and merit to her Majesty and this crown, without ventosity and popularity, that the riches of any occasion, or the tide of any opportunity, can possibly minister or offer: and that is the causes of Ireland, if they be taken by the right handle. For if the wound be not ripped up again, and come to a § recrudeney by new foreign succours, I think that no physician will go on much with letting of blood, *in declinatione morbi*; but will intend to purge and corroborate. To which purpose I send you mine opinion, without labour of words, in the enclosed; and sure I am, that if you shall enter into the matter according to the vivacity of your own spirit, nothing can make unto you a more gainful return. For you shall make the queen's felicity complete, which now, as it is, is incomparable: and for yourself, you shall show yourself as good a patriot as you are thought a politic, and make the world perceive you have not less generous ends, than dexterous delivery of yourself towards your ends; and that you have as well true arts and grounds of government, as the facility and felicity of practice and negotiation; and that you are as well seen in the periods and tides of estates, as in your own circle and way: than the which, I suppose, nothing can be a better addition and accumulation of honour unto you. This, I hope, I may in privateness write, either as a kinsman, that may be bold; or as a scholar, that hath liberty of discourse, without committing any absurdity. But if it seem any error in me thus to intromit myself, I pray your honour to believe, I ever loved her Majesty and the state, and now love yourself; and there is never any vehement love without some absurdity, as the Spaniard well says: "desuario con la calentura." So desiring your honour's pardon, I ever continue.

CONSIDERATIONS TOUCHING THE QUEEN'S SERVICE IN IRELAND.‖

THE reduction of that country, as well to civility

‡ Rawley's Resuscitatio.
§ festered sense. *Cab.* ‖ Rawley's Resuscitatio.

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and justice, as to obedience and peace, which things, as affairs now stand, I hold to be inseparable, consisteth in four points:

1. The extinguishing of the relicks of the war.
2. The recovery of the hearts of the people.
3. The removing of the root and occasions of new troubles.
4. Plantations and buildings.

For the first; concerning the places and times, and particularities of farther prosecution, in fact I leave it to the opinion of men of war; only the difficulty is, to distinguish and discern the propositions, which shall be according to the ends of the state here, that is, final and summary towards the extirpation of the troubles, from those, which though they pretend public ends, yet may refer indeed to the more private and compendious ends of the council there: or of the particular governors or captains. But still, as I touched in my letter, I do think much letting blood, *in declinatione morbi*, is against method of cure; and that it will but induce necessity, and exasperate despair; and percase discover the hollowness of that which is done already, which now blazeth to the best show. For Iaglia's * and proscriptions of two or three of the principal rebels, they are, no doubt, *jure gentium*, lawful: in Italy usually practised upon the banditti; best in season when a side goeth down; and may do good in two kinds; the one, if they take effect; the other, in the distrust which may follow amongst the rebels themselves. But of all other points, to my understanding, the most effectual is, the well expressing or impressing the design of this state, upon that miserable and desolate kingdom; containing the same between these two lists or boundaries; the one, that the queen seeketh not an extirpation of that people, but a reduction; and that, now she hath chastised them by her royal power and arms, according to the necessity of the occasion, her Majesty taketh no pleasure in effusion of blood, or displanting of ancient generations. The other, that her Majesty's princely care is principally and intentionally bent upon the action of Ireland; and that she seeketh not so much the ease of charge, as the royal performance of the office of protection, and reclaim of those her subjects: and in a word, that the case is altered so far as may stand with the honour of the time past: which it is easy to reconcile, as in my last note I showed. And again, I do repent, that if her Majesty's design be *ex professo* to reduce wild and barbarous people to civility and justice, as well as to reduce rebels to obedience, it makes weakness turn christianity, and conditions graces; and so hath a fineness in turning utility upon point of honour, which is agreeable to the humour of these times. And besides, if her Majesty shall suddenly abate the lists of her forces, and shall do nothing to countervail it in point of reputation, of a politic proceeding, I doubt things may too soon fall back into the state they were in. Next to this; adding reputation to the cause, by imprinting an opinion of her Majesty's care and intention upon this action, is the taking away of reputation from the contrary side, by cutting off the opinion and expectation of foreign succours; to which purpose this enterprise of Algiers, if it hold according to the advertisement, and if it be not wrapped up in the period of this summer, seemeth to be an opportunity *cœlitus demissa*. And to the same purpose nothing can be more fit than a treaty, or a shadow of a treaty of a peace with Spain, which methinks shall be in our power to fasten at least *rumore tenus*, to the deluding of as wise people as the Irish. Lastly, for this point; that which the ancients called "potestas facta redeundi ad sanitatem;" and which is but a mockery when the enemy is strong, or proud, but effectual in his declination; that is, a liberal proclamation of grace and pardon to such as shall submit, and come in within a time prefixed, and of some farther reward to such as shall bring others in; that one's sword may be sharpened by another's, is a matter of good experience, and now, I think, will come in time. And percase, though I wish the exclusions of such a pardon exceeding few, yet it will not be safe to continue some of them in their strength, but to translate them and their generations into England; and give them recompence and satisfaction here, for their possessions there, as the king of Spain did, by divers families of Portugal. To the effecting of all the points aforesaid, and likewise those which fall within the divisions following, nothing can be in priority, either of time or matter, better than the sending of some commission of countenance, *ad res inspiciendas et componendas*; for it will be a very significant demonstration of her Majesty's care of that kingdom; a credence to any that shall come in and submit; a bridle to any that shall have their fortunes there, and shall apply their propositions to private ends; and an evidence that her Majesty, after arms laid down, speedily pursueth a politic course, without neglect or respiration: and it hath been the wisdom of the best examples of government.

Towards the recovery of the hearts of the people, there be but three things, *in natura rerum*.

1. Religion.
2. Justice and protection.
3. Obligation and reward.

For religion, to speak first of piety, and then of policy, all divines do agree, that if consciences be to be enforced at all, wherein yet they differ, two things must precede their enforcement; the one, means of instruction; the other, time of operation; neither of which they have yet had. Besides, till they be more like reasonable men than they yet are, their society were rather scandalous to the true religion than otherwise; as pearls cast before swine: for till they be cleansed from their blood, incontinency, and theft, which are now not the lapses of particular persons, but the very laws of the nation, they are incompatible with religion reformed. For policy, there is no doubt but to wrestle with them now, is directly opposite to their reclaiming, and cannot but continue their alienation of mind from this government. Besides, one of the principal pretences, whereby the heads of the rebellion have prevailed both with the people, and with the foreigner, hath been the defence of the catholic religion: and it is

* Al. Taglacs.

this that likewise hath made the foreigner reciprocally more plausible with the rebel. Therefore a toleration of religion, for a time, not definite, except it be in some principal towns and precincts, after the manner of some French edicts, seemeth to me to be a matter warrantable by religion, and in policy of absolute necessity. And the hesitation in this point, I think, hath been a great casting back of the affairs there. Neither if any English papist or recusant shall, for liberty of his conscience, transfer his person, family, and fortunes thither; do I hold it a matter of danger, but expedient to draw on undertaking, and to further population. Neither if Rome will cozen itself, by conceiving it may be some degree to the like toleration in England, do I hold it a matter of any moment; but rather a good mean to take off the fiereeness and eagerness of the humour of Rome, and to stay further excommunications or interdictions for Ireland. But there would go hand in hand with this, some course of advancing religion indeed, where the people is capable thereof; as the sending over some good preachers, especially of that sort which are vehement and zealous persuaders, and not scholastical, to be resident in principal towns; endowing them with some stipends out of her Majesty's revennes, as her Majesty hath most religiously and graciously done in Lancashire: and the recontinuing and replenishing the college begun at Dublin, the placing of good men to be bishops in the sees there, and the taking care of the versions of Bibles and catechisms, and other books of instruction, into the Irish language; and the like religious courses, both for the honour of God, and for the avoiding of scandal and insatisfaction here, by the show of a toleration of religion in some parts there.

For justice: the barbarism and desolation of the country considered, it is not possible they should find any sweetness at all of justice; if it shall be, which hath been the error of times past, formal, and fetched far off from the state; because it will require running up and down for process; and give occasion for polling and exactions by fees, and many other delays and charges. And therefore there must be an interim in which the justice must be only summary; the rather, because it is fit and safe for a time the country do participate of martial government; and therefore, I could wish in every principal town or place of habitation, there were a captain or governor; and a judge, such as recorders and learned stewards are here in corporations, who may have a prerogative commission to hear and determine *secundum æquam discretionem;* and as near as may be to the laws and customs of England; and that by bill or plaint, without original writ; reserving from their sentence matter of freehold and inheritance, to be determined by a superior judge itinerant; and both sentences, as well of the bailywick judge, as itinerant, to be reversed, if cause be, before the council of the province to be established there with fit instructions.

For obligation and reward; it is true, no doubt, which was anciently said, that a state is contained in two words, *præmium* and *pœna;* and I am persuaded, if a penny in the pound which hath been spent in *pœna*, for this kind of war is but *pœna*, a chastisement of rebels, without fruit or emolument to this state, had been spent in *præmio*, that is, in rewarding, things had never grown to this extremity. But to speak forwards. The keeping of the principal Irish persons in terms of contentment, and without cause of particular complaint; and generally the carrying of an even course between the English and the Irish; whether it be in competition, or whether it be in controversy, as if they were one nation, without that same partial course which hath been held by the governors and counsellors there, that some have favoured the Irish, and some contrary, is one of the best medicines of that state. And as for other points of contentment, as the countenancing of their nobility as well in this court as there; the imparting of knighthood; the care of education of their children, and the like points of comfort and allurement; they are things which fall into every man's consideration.

For the extirpating of the seeds of troubles, I suppose the main roots are but three. The first, the ambition and absoluteness of the chief of the families and septs. The second, the licentious idleness of their kernes and soldiers, that lie upon the country, by cesses and such like oppressions. And the third, the barbarous laws, customs, their brehon laws, habits of apparel, their poets or heralds that enchant them in savage manners, and sundry other such dregs of barbarism and rebellion, which by a number of politic statutes of Ireland, meet to be put in execution, are already forbidden; unto which such additions may be made as the present time requireth. But the deducing of this branch requireth a more particular notice of the state and manners there, than falls within my compass.

For plantations and buildings, I do find it strange that in the last plot for the population of Munster, there were limitations how much in demesne, and how much in farm, and how much in tenancy; again, how many buildings should be erected, how many Irish in mixture should be admitted, and other things foreseen almost to enriosity: but no restraint that they might not build *sparsim* at their pleasure; nor any condition that they should make places fortified and defensible: which omission was a strange neglect and secureness, to my understanding. So as for this last point of plantations and buildings, there be two considerations which I hold most material; the one for quickening, and the other for assuring. The first is, that choice be made of such persons for the government of towns and places, and such undertakers be procured, as be men gracious and well beloved, and are like to be well followed. Wherein for Munster, it may be, because it is not *res integra;* but that the former undertakers stand interessed, there will be some difficulty; but surely, in mine opinion, either by agreeing with them, or by overruling them with a parliament in Ireland, which in this course of a politic proceeding, infinite occasions will require speedily to be held, it will be fit to supply fit qualified persons for undertakers. The other, that it be

not left, as heretofore, to the pleasure of the undertakers and adventurers, where and how to build and plant; but that they do it according to a prescript or formulary. For first, the places, both maritime and inland, which are fittest for colonies or garrisons, as well for doubt of the foreigner, as for keeping the country in bridle, will be found, surveyed, and resolved upon: and then that the patentees be tied to build in those places only, and to fortify as shall be thought convenient. And lastly, it followeth of course, in countries of new populations, to invite and provoke inhabitants by ample liberties and charters.

LIX. TO MY LORD OF CANTERBURY [DR. WHITGIFT.]*

IT MAY PLEASE YOUR GRACE,

I HAVE considered the objections, perused the statutes, and framed the alterations, which I send, still keeping myself within the privity of a letter, and form of narration; not entering into a form of argument or disputation: for, in my poor conceit, it is somewhat against the majesty of princes' actions, to make too curious and striving apologies, but rather to set them forth plainly, and so as there may appear a harmony and constancy in them, so that one part upholdeth another. And so I wish your Grace all prosperity. From my poor lodging, this, &c.

Your Grace's most dutiful pupil and servant.

LX. TO SIR THOMAS LUCY.†

SIR,

THERE WAS no news better welcome to me this long time, than that of the good success of my kinsman; wherein if he be happy, he cannot be happy alone, it consisting of two parts. And I render you no less kind thanks for your aid and favour towards him, than if it had been for myself; assuring you that this bond of alliance shall on my part tie me to give all the tribute to your good fortune upon all occasions, that my poor strength can yield. I send you, so required, an abstract of the lands of inheritance; and one lease of great value, which my kinsman bringeth; with a note of the tenures, values, contents, and state, truly and perfectly drawn; whereby you may perceive the land is good land, and well countenanced by scope of acres, woods, and royalties; though the total of the rents be set down as it now goeth, without improvement: in which respect it may somewhat differ from your first note. Out of this, what he will assure in jointure, I leave it to his own kindness; for I love not to measure affection. To conclude, I doubt not your daughter might have married to a better living, but never to a better life; having chosen a gentleman bred to all honesty, virtue, and worth, with an estate convenient. And if my brother or myself were either thrivers, or fortunate in the queen's service, I would hope there should be left as great a house of the Cokes in this gentleman, as in your good friend Mr. Attorney-General. But sure I am, if Scriptures fail not, it will have as much of God's blessing; and sufficiency is ever the best feast, &c.

* Rawley's Resuscitatio.

† Ibid.

LXI. A LETTER OF RECOMMENDATION OF HIS SERVICE TO THE EARL OF NORTHUMBERLAND, A FEW DAYS BEFORE QUEEN ELIZABETH'S DEATH.‡

IT MAY PLEASE YOUR GOOD LORDSHIP,

As the time of sowing a seed is known, but the time of coming up and disclosing is casual, or according to the season; so I am witness to myself, that there hath been covered in my mind a long time a seed of affection and zeal towards your lordship, sown by the estimation of your virtues, and your particular honours and favours to my brother deceased, and myself; which seed still springing, now bursteth forth into this profession. And to be plain with your lordship, it is very true, and no winds or noises of civil matters can blow this out of my head or heart, that your great capacity and love towards studies and contemplations of a higher and worthier nature, than popular, a nature rare in the world, and in a person of your lordship's quality almost singular, is to me a great and chief motive to draw my affection and admiration towards you. And therefore, good my lord, if I may be of any use to your lordship, by my head, tongue, or pen, means, or friends, I humbly pray you to hold me your own; and herewithal, not to do so much disadvantage to my good mind, nor partly to your own worth, as to conceive that this commendation of my humble service proceedeth out of any straits of my occasions, but merely out of an election, and indeed the fulness of my heart. And so wishing your lordship all prosperity, I continue, &c.

March 160$\frac{3}{4}$.

‡ Ibid.

LETTERS IN THE REIGN OF KING JAMES.

LXII. TO MR. *FOWLYS.†

SIR,

THE occasion awaketh in me the remembrance of the constant and mutual good offices, which passed between my good brother and yourself; whereunto, as you know, I was not altogether a stranger; though the time and design, as between brethren, made me more reserved. But well do I bear in mind the great opinion which my brother, whose judgment I much reverence, would often express to me, of your extraordinary sufficiency, dexterity, and temper, which he had found in you, in the business and service of the king our sovereign lord.‡ This latter bred in me an election, as the former gave an inducement for me, to address myself to you; and to make this signification of my desire towards a mutual entertainment of good affection and correspondence between us: hoping that both some good effect may result of it towards the king's service; and that for our particulars, though occasion give you the precedence of farthering my being known, by good note, unto the king; so no long time will intercede before I on my part shall have some means given to requite your favours, and to verify your commendation. And so with my loving commendations, good Mr. Fowlys, I leave you to God's goodness.

From Gray's-Inn, 27 March, 1603.

LXIII. TO MR. FOWLYS.§

MR. FOWLYS,

I DID write unto you yesterday by Mr. Lake, who was despatched hence from their lordships, a letter of reviver of those sparks of former acquaintance between us in my brother's time; and now, upon the same confidence, finding so fit a messenger, I would not fail to salute you; hoping it will fall out so happily, as that you shall be one of the king's servants which his Majesty will first employ here with us; where I hope to have some means not to be barren in friendship towards you.

We all thirst after the king's coming, accounting all this but as the dawning of the day before the rising of the sun, till we have his presence. And though now his Majesty must be "Janus bifrons," to have a face to Scotland, as well as to England, yet "quod nunc instat agendum:" the expectation is here that he will come in state, and not in strength.‖ So for this time I commend you to God's goodness.

28 March, 1603.

LXIV. TO SIR ¶ THOMAS CHALONER, THEN IN SCOTLAND, BEFORE HIS MAJESTY'S ENTRANCE.**

SIR,

FOR our money matters, I am assured you received no insatisfaction: for you know my mind, and you know my means; which now the openness of the time caused by this blessed consent, and peace, will increase; and so our agreement according to your time, be observed. For the present, according to the Roman adage, that "one cluster of grapes ripeneth best besides another," I know you hold me not unworthy, whose mutual friendship you should cherish; and I, for my part, conceive good hope, that you are likely to become an acceptable servant to the king our master: not so much for any way made heretofore, which, in my judgment, will make no great difference, as for the stuff and sufficiency which I know to be in you; and whereof, I know, his Majesty may reap great service. And therefore, my general request is, that according to that industrious vivacity which you use towards your friends, you will further his Majesty's good conceit and inclination towards me, to whom words cannot make me known, neither mine own, nor others; but time will, to no disadvantage of any that shall forerun his Majesty's experience, by your testimony and commendation. And though occasion give you prece-

* Upon the death of queen Elizabeth Mr. Fowlys was sent out of Scotland with letters to divers of the lords of the privy counell; soon after whose arrival the lord treasurer, the lord high admiral, and Sir Robert Cecil, principal secretary of state, returned a large letter of thanks, and of advice to the king concerning the then posture of affairs. He was afterwards created a baronet by the name of Sir David Fowlys of Ingleby, in the north riding of Yorkshire, where he had seated himself, and where his posterity now remain. *Stephens.*

† Rawley's Resuscitatio.

‡ Mr. Anthony Bacon, the elder and only brother to our author, of the whole blood, reported to have been equal to him in height of wit, though inferior in the improvements of learning and knowledge. Sir Henry Wotton observes, that he was a gentleman of impotent feet, but of a nimble head, through whose hands ran all the intelligences with Scotland. *Stephens.*

§ Rawley's Resuscitatio.

‖ My lord Bacon, in his history of king Henry VII. observes the like conduct in that wise prince, in order to quiet the fears of the people, and disperse the conceit of his coming in by conquest.

¶ Sir Thomas Chaloner was son to Sir Thomas Chaloner, who had behaved himself with great valour, under the command of the emperor Charles V. and the duke of Somerset, and with equal prudence, in the courts of the emperor and king of Spain; whither he was sent ambassador in the beginning of the reign of queen Elizabeth. The son was, like his father, a gentleman of great parts and abilities, to whose care king James committed the tuition of prince Henry, 17 Aug. 1603. *Rymer*, xvi. 545. Sir Thomas had, a few years before, made the first discovery of alum mines in this nation, at or near Gisborough in Yorkshire; where some of his name and family still continue. He survived his royal pupil just three years, dying in November, 1615. *Stephens.*

** Rawley's Resuscitatio.

dence of doing me this special good office; yet I hope no long time will intercede before I shall have some means to requite your favour and acquit your report. More particularly, having thought good to make oblation of my most humble service to his Majesty by a few lines, I desire your loving care and help, by yourself, or such means as I refer to your discretion, to deliver and present the same to his Majesty's hands: of which letter I send you a copy, that you may know what you carry; and may take of Mr. Matthew the letter itself, if you be pleased to undertake the delivery. Lastly, I do commend to yourself, and such your courtesies as occasion may require, this gentleman Mr. Matthew, eldest son to my lord bishop of Duresme, and my very good friend, assuring you that any courtesy you shall use towards him, you shall use to a very worthy young gentleman, and one, I know, whose acquaintance you will much esteem. And so I ever continue.

1603.

LXV. AN OFFER OF SERVICE TO THE KING UPON HIS FIRST COMING IN.*

IT MAY PLEASE YOUR MOST EXCELLENT MAJESTY,

IT is observed by some, upon a place in the Canticles, "Ego sum flos campi, et lilium convallium," that, *a dispari*, it is not said, "Ego sum flos horti, et lilium montium;" because the majesty of that person is not enclosed for a few, nor appropriated to the great. And yet, notwithstanding this royal virtue of access, which both nature and judgment have planted in your Majesty's mind, as the portal of all the rest, could not of itself, my imperfections considered, have animated me to make oblation of myself immediately to your Majesty, had it not been joined with a habit of the like liberty which I enjoyed with my late dear sovereign mistress; a princess happy in all things else, but most happy in such a successor. And yet farther, and more nearly, I was not a little encouraged, not only upon a supposal that unto your Majesty's sacred ear, open to the air of all virtues, there might perhaps have come some† small breath of the good memory of my father, so long a principal counsellor in your kingdom;‡ but also a more particular knowledge of the infinite devotion and incessant endeavours, beyond the strength of his body, and the nature of the times, which appeared in my good brother, Mr. Anthony Bacon, towards your Majesty's service; and were on your Majesty's part, through your singular benignity, by many most gracious and lively significations and favours accepted and acknowledged, beyond the merit of any thing he could effect: which endeavours and duties, for the most part, were common to myself with him, though by design, as between brethren, dissembled. And therefore, most high and mighty king, my most dear and dread sovereign lord, since now the corner-stone is laid of the mightiest monarchy in Europe; and that God above, who hath ever a hand in bridling the floods and motions both of the seas and people's hearts, hath by the miraculous and universal consent, the more strange, because it proceedeth from such diversity of causes, in your coming in, given a sign and token of great happiness in the continuance of your reign; I think there is no subject of your Majesty's which loveth this island, and is not hollow or unworthy, whose heart is not set on fire, not only to bring you peace-offerings, to make you propitious; but to sacrifice himself a burnt-offering or holocaust to your Majesty's service: amongst which number no man's fire shall be more pure and fervent than mine; but how far forth it shall blaze out, that resteth in your Majesty's § employment. So thirsting after the happiness of kissing your royal hand, I continue ever. 1603.

* Rawley's Resuscitatio.
† Notice. Sir Tobie Matthew's Collection of Letters, p. 17.
‡ Sir N. Bacon, lord keeper of the great seal, from the first to the 21 Elizabeth.

LXVI. A LETTER COMMENDING HIS LOVE TO THE LORD OF‖ KINLOSSE, UPON HIS MAJESTY'S ENTRANCE.¶

MY LORD,

THE present occasion awaketh in me a remembrance of the constant amity and mutual good offices, which passed between my brother deceased and your lordship, whereunto I was less strange, than in respect of the time I had reason to pretend; and withal, I call to mind the great opinion which my brother, who seldom failed in judgment of a person, would often express to me of your lordship's great wisdom and soundness, both in head and heart, towards the service and affairs of our sovereign lord the king.

The one of those hath bred in me an election, and the other a confidence to address my good will and sincere affection to your good lordship; not doubting, in regard that my course of life hath wrought me not to be altogether unseen in the matters of the kingdom, that I may be of some use, both in point of service to the king, and in your lordship's particular.

And on the other side, I will not omit humbly to desire your lordship's favour, in farthering a good conceit and impression of my most humble duty and true zeal towards the king; to whose Majesty words cannot make me known, neither mine own nor others: but time will, to no disadvantage of any, that shall forerun his Majesty's experience, by their humanity and commendations. And so I commend your good lordship to God's providence and protection.

From Gray's-Inn, &c. 1603.

§ Pleasure to ordain. *Sir Tobie Matthew.*
‖ Edward Bruce Mil. Dom. Kinlosse, Magis. Rotulorum curiæ cancellariæ, 19 Jul. 1603. *Rymer*, xvi. p. 491.
¶ Scrip. in sacra, p. 56. Edit. 1654.

LXVII. A LETTER TO DOCTOR MORISON, A *SCOTTISH PHYSICIAN, UPON HIS MAJESTY'S COMING IN.

Mr. Dr. Morison,

I have thought good by this my letter to renew this my ancient acquaintance which hath passed between us, signifying my good mind to you to perform to you any good office, for your particular, and my expectation and a firm assurance of the like on your part towards me: wherein I confess you may have the start of me, because occasion hath given you the precedency in investing you with opportunity to use my name well, and by your loving testimony to further a good opinion of me in his Majesty, and the court.

But I hope my experience of matters here will, with the light of his Majesty's favour, enable me speedily both to requite your kindness, and to acquit and make good your testimony and report. So not doubting to see you here with his Majesty; considering that it belongeth to your art to feel pulses, (and I assure you, Galen doth not set down greater variety of pulses, than do vent here in men's hearts,) I wish you all prosperity, and remain

Yours, &c.

From my chamber at
Gray's-Inn, &c. 1603.

LXVIII. TO MR. DAVIES,† GONE TO MEET THE KING.‡

Mr. Davies,

Though you went on the sudden, yet you could not go before you had spoken with yourself to the purpose which I will now write: and therefore I know it shall be altogether needless, save that I meant to show you, that I was not asleep. Briefly, I commend myself to your love and the well using my name; as well in repressing and answering for me, if there be any biting or nibbling at it in that place, as in imprinting a good conceit and opinion of me, chiefly in the king, of whose favour I make myself comfortable assurance, as otherwise in that court: and not only so, but generally to perform to me all the good offices which the vivacity of your wit can suggest to your mind, to be performed to one, with whose affection you have so great sympathy, and in whose fortune you have so great interest. So desiring you to be good to concealed poets, I continue

Your assured friend,

FR. BACON.

Gray's-Inn this
28th of March, 1603.

LXIX. TO MR. ROBERT KEMPE, UPON THE DEATH OF QUEEN ELIZABETH.§

Mr. Kempe,

This alteration is so great, as you might justly conceive some coldness of my affection towards you, if you should hear nothing from me, I living in this place. It is in vain to tell you with what wonderful still and calm this wheel is turned round; which, whether it be a remnant of her felicity that is gone, or a fruit of his reputation that is coming, I will not determine. For I cannot but divide myself between her memory and his name: yet we account it but a fair morn, before sun-rising, before his Majesty's presence: though for my part I see not whence any weather should arise. The papists are contained with fear enough, and hope too much. The French is thought to turn his practice upon procuring some disturbance in Scotland, where crowns may do wonders: but this day is so welcome to the nation, and the time so short, as I do not fear the effect. My lord of Southampton expecteth release by the next despatch, and is already much visited and much well-wished. There is continual posting by men of good quality towards the king: the rather, I think, because this spring-time it is but a kind of sport. It is hoped, that as the state here hath performed the part of good attorneys to deliver the king quiet possession of his kingdoms, so the king will redeliver them quiet possession of their places; rather filling places void, than removing men placed. So, &c. 1603.

LXX. TO THE EARL OF NORTHUMBERLAND,‖ RECOMMENDING A PROCLAMATION TO BE MADE BY THE KING AT HIS ENTRANCE ¶

It may please your lordship,

I do hold it a thing formal and necessary for the

* He had held a correspondence with Mr. Anthony Bacon, and was employed to find intelligence from Scotland to the earl of Essex. See "Memoirs of the Reign of Queen Elizabeth from the year 1581, till her death." Vol. I. p. 79, 109, 116.

† Mr. Davies having made his way unto the knowledge of king James, by a poem he dedicated unto the late queen, entitled, "Nosce teipsum," was very favourably received by the king; and not long after made his attorney-general in Ireland, and serjeant at law: and in the next reign, was nominated to be chief justice of the king's bench in England upon the displacing of Sir Randal Crew; but died suddenly on 27 December, 1625. He was very conversant with the wits of his time; some of his writings declare his excellency in that kind, as others do his abilities in his own profession. *Stephens.*

‡ Rawley's Resuscitatio. § Ibid.

‖ Henry Piercy, the ninth earl of Northumberland of that name, had not only great learning himself, but was also patron of other learned men, especially mathematicians. And though no man espoused the title of king James to the English throne with a greater zeal than himself, declaring he would remove all impediments by his sword; yet the king, perhaps fearing that one who thought he could confer crowns, might attempt to resume them, caused this great man to be so effectually prosecuted in the star-chamber in the year 1606, upon the supposition of his being privy to the powder-plot, or at least of concealing his cousin Mr. Thomas Piercy, one of the conspirators therein; that he was fined 30,000*l.* and condemned to perpetual imprisonment. But the lord Hay, afterwards created viscount Doncaster and earl of Carlisle, marrying in 1617 his youngest daughter the lady Lucy Piercy, a lady of the most celebrated wit and beauty of any in her times; his release from the Tower was obtained about the year 1621. Though it is said, the earl was with great difficulty prevailed to accept of this favour, because procured by a man he disdained to own to be so near a relation, as that of a son. *Stephens.*

¶ Rawley's Resuscitatio.

king to forerun his coming, be it never so speedy, with some gracious declaration for the cherishing, entertaining, and preparing of men's affections.* For which purpose I have conceived a draught, it being a thing familiar in my mistress her times to have my pen nsed in public writings of satisfaction. The use of this may be in two sorts: first, properly, if your lordship think it convenient to show the king any such draught, because the veins and pulses of this state cannot bnt be best known here; which if your lordship should do, then I would desire you to withdraw my name, and only signify, that you gave some heads of direction of such a matter to one, of whose style and pen you had some opinion. The other collateral; that though your lordship make no other use of it, yet it is a kind of portraiture of that which I think worthy to be advised by your lordship to the king; and perhaps more compendious and significant, than if I had set them down in articles. I would have attended your lordship but for some little physic I took. To-morrow morning I will wait on you. So I ever, &c. 1603.

LXXI. TO THE EARL OF SOUTHAMPTON,† UPON THE KING'S COMING IN.‡

It may please your lordship,

I would have been very glad to have presented my humble service to your lordship hy my attendance, if I could have foreseen that it should not have been unpleasing unto you. And therefore, because I would be snre to commit no error, I chose to write; assuring your lordship, how little soever it may seem credible to you at first, yet it is as true as a thing that God knoweth; that this great change hath wrought in me no other change towards your lordship than this, that I may safely be that to you now, which I was truly before. And so craving no other pardon, than for troubling you with my letter, I do not now begin to be, but continue to be

Yonr lordship's humble and much devoted

1603. FR. BACON.

LXXII. TO MR. TOBIE MATTHEW,§ SIGNIFYING THE WISE PROCEEDINGS OF KING JAMES AT HIS FIRST ENTRANCE INTO ENGLAND.‖

Sir,

I was heartily glad to hear that you have passed so great a part of your journey¶ in so good health. My aim was right in my address of letters to those persons in the court of Scotland, who are likeliest to be used for the affairs of England; hut the pace they held was too swift, for the men were come away before my letters could reach them. With the first I have renewed acquaintance, and it was like a bill of revivor, by way of cross suits; for he was as ready to have begun with me. The second did this day arrive, and took acquaintance with me instantly in the council-chamber, and was willing to entertain me with farther demonstrations of confidence, than I was willing at that time to admit. But I have had no serious speech with him, nor do I yet know whether any of the doubles of my letter have been delivered to the king. It may perhaps have proved yonr luck to be the first.

Things are here in good quiet. The king acts excellently well; for he puts in clanses of reservation to every proviso. He saith, he would be sorry to have jnst cause to remove any. He saith, he will displace none who hath served the qneen and state sincerely, &c. The truth is, here be two extremes; some few would have no change, no not reformation; some many would have much change, even with perturbation. God, I hope, will direct this wise king to hold a mean between repntation enough and no terrors.** In my particular I have many eomforts and assurances; but in my own opi-

* Instead of this declaration, Sir Francis Bacon tells us, that "at this time there came forth in print the king's book containing matter of instruction to the prince his son, touching the office of a king; which falling into every man's hand, filled the whole realm as with a good perfume or incense before the king's coming in; and far exceeded any formal or curious edict or declaration, which could have been devised of that nature, wherewith princes in the beginning of their reigns do use to grace themselves, or at least express themselves gracious in the eyes of their people." P. 797.

† Henry Wriothesley earl of Southampton having been involved in the guilt of the unfortunate earl of Essex, was condemned for the same crimes; hut that earl, who seemed careless of his own life, interceded for the life of his friend, as did Southampton's own modest behaviour at his trial: from which time he suffered imprisonment in the Tower till the 10th of April, 1603. He was afterwards restored in blood, made knight of the garter, and one uf his Majesty's privy council. *Stephens.*

‡ Rawley's Resuscitatin.

§ Mr. Matthew was son to Dr. Toby Matthew, bishnp of Durham, afterwards archbishop of York; an eminent divine, considered either in the schools, the pulpit, or the episcopal chair. He was born in Oxford in 1578, whilst his father was dean of Christ's-Church; but was, to the great grief of his parents, a few years after the king's accession, reconciled to the church of Rome, through the means, as is said, of Parsons the Jesnit; and became so industrious an agent for her, that his refusal of the oath of allegiance established by act of parliament, together with some imprudent carriage, gave the king such offence, that he was in a manner exiled the kingdom in the year 1607. He continued roving from one country and prince's court to another till 1617, when applying himself with much earnestness to the earl of Buckingham, he obtained a permission to come into England, which he did in July that year, presenting himself in the first place to Sir Francis Bacon, then lord keeper of the great seal. But the king being afterwards displeased with him, did, notwithstanding his moving and pressing letters, command him again to depart in October, 1618. Yet in 1622, he was recalled to assist in the business of the Spanish match then in agitation, and knighted the year following. He is represented as a man of very good parts and literature, hut of an active and restless temper. What opinion Sir Francis Bacon had of him when young, appears before in his letter to Sir Thomas Chaloner; and what esteem he had for Sir Francis may he seen in the preface to his collection of letters: at the beginning of which is printed his character of the lady Carlisle, whom I have mentioned No. LXX. He died at Gaunt in Flanders in 1655. *Stephens.*

‖ Sir Tobie Matthew's Collection of Letters, p 18.

¶ Viz. Into Scotland to meet the king. See No. LXIV. p. 823.

** Upon this occasion it may not he amiss to remember what cardinal d'Ossat writ from Rome to M. de Villeroy upon the accession of king James to the crown of England, part of which I wish no prince would ever forget.

"C'est l'ordinaire des hommes de regarder plus au soleil orient qu' à l'occident, & des Princes hien avisez qui sont appellez à un nouvel estat, d'y entrer doucement, sans irriter ni mécontenter personne ni dedans ni dehors. Si ce Prince continüe guidé par la vertu & accompagné de bonheur, comme jusques icy, il sera très-grand, & fera bon l'avoir pour amy;

nion the chief is, that the canvassing world is gone, and the deserving world is come. And withal I find myself as one awaked out of sleep; which I have not been this long time, nor could, I think, have been now without such a great noise as this, which yet is in *aura leni*. I have written this to you in haste, my end being no more than to write, and thereby to make you know that I will ever continue the same, and still be sure to wish you as heartily well as to myself. 1603.

LXXIII. TO THE EARL OF NORTHUMBERLAND.*

IT MAY PLEASE YOUR GOOD LORDSHIP,

I WOULD not have lost this journey, and yet I have not that I went for; for I have had no private conference to purpose with the king; no more hath almost any other English: for the speech his Majesty admitteth with some noblemen, is rather matter of grace, than matter of business. With the attorney he spake, urged by the treasurer of Scotland, but no more than needs must. After I had received his Majesty's first welcome, and was promised private access; yet not knowing what matter of service your lordship's letter carried, for I saw it not, and well knowing that primeness in advertisement is much; I chose rather to deliver it to Sir Thomas Erskine, than to cool it in my own hands, upon expectation of access. Your lordship shall find a prince the farthest from vain glory that may be; and rather like a prince of the ancient form, than of the latter time. His speech is swift and corsory, and in the full dialect of his country; and in speech of business, short; in speech of discourse, large. He affecteth popularity by gracing such as he hath heard to be popular, and not by any fashions of his own: he is thought somewhat general in his favours; and his virtue of access is rather, because he is much abroad and in press, than that he giveth easy audience. He hasteneth to a mixture of both kingdoms and occasions, faster perhaps than policy will well bear. I told your lordship once before, that, methought, his Majesty rather asked counsel of the time past, than of the time to come: but it is yet early to ground any settled opinion. For the particulars, I refer to conference, having in these generals gone farther in so tender an argument than I would have done, were not the bearer hereof so assured. So I continue, &c. 1603.

& nous, qui depuis quelques années en ça n'avions eu l'œil quasi qu'en un lieu, faudra que l'ayons cy-après en deux; comme faudra bien aussi que fassent encore d'autres. Et en fin de compte, *Celui de tous qui regnera le mieux & le plus justement à l'honneur & gloire de Dieu, & au soulagement, profit & felicité de ses sujets; sera le plus asseuré, le plus fort, & le plus aimé, loué & beni de Dieu & des hommes; en quoy consiste la vraye & perdurable grandeur & puissance des Roys, & l'asseurance de leur posterité.*" Stephens.

* Rawley's Resuscitatio.

† John Murray, Esq.

LXXIV. A LETTER TO MR. MURRAY,† OF THE KING'S BED-CHAMBER.

MR. MURRAY,

IT is very true, that his Majesty, most graciously at my humble request, knighted the last Sunday my brother-in-law, a towardly young gentleman;‡ for which favour I think myself more bound to his Majesty, than for the benefit of ten knights: and to tell you truly, my meaning was not, that the suit of this other gentleman, Mr. Temple,§ should have been moved in my name. For I should have been unwilling to have moved his Majesty for more than one at once, though many times in his Majesty's courts of justice, if we move once for our friends, we are allowed to move again for our fee.

But indeed my purpose was, that you might have been pleased to have moved it as for myself.

Nevertheless, since it is so far gone, and that the gentleman's friends are in some expectation of success, I leave it to your kind regard what is farther to be done, as willing to give satisfaction to those which have put me in trust, and loth on the other side to press above good manners. And so with my loving commendation I remain

1603. Yours, &c.

LXXV. TO MR. PIERCE, SECRETARY TO THE LORD DEPUTY OF IRELAND.‖

MR. PIERCE,

I AM glad to hear of you, as I do; and for my part, you shall find me ready to take any occasion to further your credit and preferment. And I dare assure you, though I am no undertaker, to prepare your way with my lord of Salisbury, for any good fortune which may befall you. You teach me to complain of business, whereby I write the more briefly; and yet I am so unjust, as that which I allege for mine own excuse, I cannot admit for yours: for I most, by expecting, exact your letters, with this fruit of your sufficiency, as to understand how things pass in that kingdom. And therefore having begun, I pray you continue. This is not merely curiosity, for I have ever, I know not by what instinct, wished well to that impolished part of this crown. And so, with my very loving commendations, I remain.

‡ To this Sir John Constable, Sir Francis Bacon dedicated the second edition of his "Essays;" published at London in 1613, in octavo.

§ Probably Mr. William Temple, who had been educated in King's College, Cambridge, then master of the free-school at Lincoln, next successively secretary to Sir Philip Sidney, secretary Davison, and the earl of Essex, made provost of Dublin College in 1609, and at last knighted, and appointed one of the masters in chancery in Ireland. He died about 1626, at the age of 72.

‖ Rawley's Resuscitatio.

LXXVI. TO THE EARL OF NORTHAMPTON,* DESIRING HIM TO PRESENT "THE ADVANCEMENT OF LEARNING" TO THE KING.†

IT MAY PLEASE YOUR GOOD LORDSHIP,

HAVING finished a work touching the advancement of learning, and dedicated the same to his sacred Majesty, whom I dare avouch, if the records of time err not, to be the learnedest king that hath reigned; I was desirous, in a kind of congruity, to present it by the learnedest counsellor in this kingdom; to the end that so good an argument, lighting upon so bad an author, might receive some reputation by the hands into which, and by which, it shall be delivered. And therefore, I make it my humble suit to your lordship, to present this mean but well meant writing to his Majesty, and with it my humble and zealous duty; and also my like humble request of pardon, if I have too often taken his name in vain, not only in the dedication, but in the voucher of the authority of his speeches and writings. And so I remain.

1605.

LXXVII. TO SIR THOMAS BODLEY,‡ UPON SENDING HIS BOOK OF "ADVANCEMENT OF LEARNING." §

SIR,

I THINK no man may more truly say with the psalm, "Multum incola fuit anima mea," than myself; for, I do confess, since I was of any understanding, my mind hath in effect been absent from that I have done; and in absence are many errors, which I do willingly acknowledge; and, amongst the rest, this great one that led the rest; that knowing myself by inward calling to be fitter to hold a book, than to play a part, I have led my life in civil causes; for which I was not very fit by nature, and more unfit by the pre-occupation of my mind. Therefore calling myself home, I have now for a time enjoyed myself, whereof likewise I desire to make the world partaker. My labours, if I may so term that which was the comfort of my other labours, I have dedicated to the king; desirous, if there be any good in them, it may be as the fat of a sacrifice, incensed to his honour: and the second copy I have sent unto you, not only in good affection, but in a kind of congruity, in regard of your great and rare desert of learning. For books are the shrines where the saint is, or is believed to be: and you having built an ark to save learning from deluge, deserve propriety in any new instrument or engine, whereby learning should be improved or advanced.

1605.

LXXVIII. TO THE EARL OF SALISBURY,‖ UPON SENDING "THE ADVANCEMENT OF LEARNING." ¶

IT MAY PLEASE YOUR GOOD LORDSHIP,

I PRESENT your lordship with a work of my vacant time, which if it had been more, the work had been better. It appertaineth to your lordship, besides my particular respects, in some propriety, in regard you are a great governor in a province of learning.

And, that which is more, you have added to your place affection towards learning; and to your affection judgment: of which the last I could be content were, for the time, less, that you might the less exquisitely censure that which I offer unto you. But sure I am, the argument is good, if it had lighted upon a good author. But I shall content myself to awake better spirits, like a bell-ringer, which is first up to call others to church. So with my humble desire of your lordship's good acceptation, I remain.

1605.

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* The earl of Northampton was the second son, and bore the name of that accomplished gentleman, Henry Howard, earl of Surrey, son and heir to the duke of Norfolk, who suffered under the severity of king Henry VIII's latter days; the one by death, the other by imprisonment. During great part of the reign of queen Elizabeth, while his family lay under the cloud, he applied himself to learning; and to what a degree he arrived, appears by a book he published in 1583, against the poison of supposed prophecies, dedicated to Sir Francis Walsingham; and from the eulogy that was generally given him, that he was the most learned among the noble, and the most noble among the learned. But in the king's reign his advancement was speedy both in honours and riches. The services he performed as a commissioner in making the peace between England and Spain, gave birth to a saying in those times, but with what truth I know not, that his house in the Strand, now called Northumberland house, was built by Spanish gold. He died in 1614, leaving behind him the memory of some real good works, and of some supposed ill ones; being suspected of concealing his religion for many years, and of being privy to the untimely death of Sir Thomas Overbury. —*Stephens.*

† Rawley's Resuscitatio.

‡ Sir Thomas Bodley restored the public library at Oxford, begun in the times of king Henry VI. by Humphrey, duke of Gloucester; or was rather the founder of a new one, which now bears his name, and which hath placed him among the chief benefactors to that university, and to the commonwealth of learning. He died in the entrance of the year 1613.—*Stephens.*

§ Rawley's Resuscitatio.

‖ Sir Robert Cecil, created by king James lord Cecil, viscount Cranburne, and earl Salisbury, was not only son to one of the greatest statesmen of his age, the lord Burleigh, but succeeded him in his places and abilities, and was one of the great supports of the queen's declining years. Yet the ill offices he was thought to perform towards the noble and popular earl of Essex, together with his conduct in some particulars in her successor's reign, abated the lustre of his character, which otherwise from his parts and prudence would have appeared very conspicuous. After he had been long secretary of state, some years lord treasurer and chancellor of the university of Cambridge, he died in May 1612, at Marlborough, in his return from the Bath; as by a diary of his sickness and the account given by Sir Robert Naunton, one of his retinue, appears; which I should not mention, but that his enemies in their libels, which flew freely about, have suggested that he died on the Downs; which, if true, could be esteemed at most but his misfortune.—*Stephens.*

¶ Rawley's Resuscitatio.

LXXIX. TO THE LORD TREASURER BUCKHURST,* ON THE SAME SUBJECT.†

It may please your good lordship,

I have finished a work touching the advancement or setting forward of learning, which I have dedicated to his Majesty, the most learned of a sovereign or temporal prince that time hath known: and upon reason not unlike I humbly present one of the books to your lordship; not only as a chancellor of an university, but as one that was excellently bred in all learning; which I have ever noted to shine in all your speeches and behaviours: and therefore your lordship will yield a gracious aspect to your first love, and take pleasure in the adorning of that wherewith yourself are so much adorned. And so humbly desiring your favourable acceptation thereof, with signification of humble duty, I remain. 1605.

LXXX. TO THE LORD CHANCELLOR, SIR T. EGERTON, LORD ELLESMERE, ON THE SAME SUBJECT.‡

May it please your good lordship,

I humaly present your lordship with a work, wherein as you have much commandment over the author, so your lordship hath great interest in the argument; for, to speak without flattery, few have like use of learning, or like judgment in learning, as I have observed in your lordship. And again, your lordship hath been a great planter of learning, not only in those places in the church, which have been in your own gift, but also in your commendatory vote, no man hath more constantly held "Detur digniori:" and therefore, both your lordship is beholding to learning, and learning beholding to you: which maketh me presume with good assurance that your lordship will accept well of these my labours; the rather because your lordship in private speech hath often begun to me in expressing your admiration of his Majesty's learning, to whom I have dedicated this work; and whose virtue and perfection in that kind did chiefly move me to a work of this nature; and so with signification of my most humble duty and affection to your lordship, I remain. 1605.

LXXXI. TO MR. MATTHEW.§

Sir,

I perceive you have some time when you can be content to think of your friends; from whom since you have borrowed yourself, you do well, not paying the principal, to send the interest at six months day. The relation which here I send you enclosed, carries the truth of that which is public: and though my little leisure might have required a briefer, yet the matter would have endured and asked a larger.

I have now at last taught that child to go, at the swaddling whereof you were. My work touching the proficiency and advancement of learning, I have put into two books; whereof the former which you saw, I can't but account as a page to the latter. I have now published them both; whereof I thought it a small adventure to send you a copy, who have more right to it than any man, except bishop Andrews, who was my inquisitor.

The death of the late great judge concerned not me, because the other was not removed. I write this in answer to your good wishes; which I return not as flowers‖ of Florence, but as you mean them; whom I conceive place can't alter, no more than time shall me, except it be for the better. 1605.

LXXXII. TO DR. PLAYFERE,¶ DESIRING HIM TO TRANSLATE "THE ADVANCEMENT" IN LATIN.**

Ma. Dr. Playfere,

A great desire will take a small occasion to hope and put in trial that which is desired. It pleased you a good while since to express unto me the good liking which you conceived of my book of the advancement of learning; and that more significantly, as it seemed to me, than out of courtesy or civil respect. Myself, as I then took contentment in your approbation thereof, so I should esteem and acknowledge not only my contentment increased, but my labours advanced, if I might obtain your help in that nature which I desire: wherein, before I set down in plain terms my request unto you, I will open myself, what it was which I chiefly sought and propounded to myself in that work; that you may perceive that which I now desire, to be pursuant

* I shall draw this noble lord's character from Sir Robert Naunton's observations of the favourites of queen Elizabeth; and much in his own words: "My lord of Buckhurst was of the noble house of the Sackvilles, and of the queen's consanguinity. He was a very fine gentleman of person and endowments both of art and nature, but without measure magnificent, till on the turn of his humour, and the allay that his years, and good counsels of the queen, &c. had wrought upon those immoderate courses of his youth, and that height of spirit inherent to his house; she began to assist him in the reparation of that vast patrimony he had much wasted. After the honour she had given him of lord Buckhurst, and knight of the garter, she procured him to be chosen chancellor of the university of Oxford, upon the death of Sir Christopher Hatton, and constituted him lord treasurer on the death of the lord Burleigh, which office he enjoyed till April, 1608, dying then suddenly at the council table; the king having some years before created him earl of Dorset. He is also much commended for his happy vein in poetry, to which he was addicted in his youth; and for his elocution, and the excellencies of his pen; faculties that ran in the blood, as Sir Robert Naunton observes in his son Robert, and his grandsons Richard and Edward, successive earls of Dorset; and the last ago had the satisfaction to see continued in the person of the right honourable Charles earl of Dorset and Middlesex. *Stephens.*

† Rawley's Resuscitatio.

‡ Ibid.

§ Sir Tobie Matthew's "Collection of Letters," p. 11.

‖ Mr. Matthew wrote an elegy on the duke of Florence's felicity.

¶ Thomas Playfere, D.D. a native of Kent, educated in St. John's college in Cambridge, and appointed Margaret professor of divinity in that university about 1596, in the room of Dr. Peter Baro. He died there about January or February, 1608.

** Rawley's Resuscitatio.

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thereupon. If I do not much err, for any judgment that a man maketh of his own doings, had need be spoken with a "Si nunquam fallat imago," * I have this opinion, that if I had sought mine own commendation, it had been a much fitter course for me to have done as gardeners used to do, by taking their seed and slips, and rearing them first into plants, and so uttering them in pots, when they are in flower, and in their best state. But forasmuch as my end was merit of the state of learning, to my power, and not glory; and because my purpose was rather to excite other men's wits, than to magnify mine own, I was desirous to prevent the uncertainness of mine own life and times, by uttering rather seeds than plants: nay, and farther, as the proverb is, by sowing with the basket, rather than with the hand: wherefore, since I have only taken upon me to ring a bell to call other wits together, which is the meanest office, it cannot but be consonant to my desire, to have that bell heard as far as can be. And since they are but sparks which can work but upon matter prepared, I have the more reason to wish that those sparks may fly abroad, that they may the better find and light upon those minds and spirits which are apt to be kindled. And therefore the privateness of the language considered, wherein it is written, excluding so many readers; as, on the other side, the obscurity of the argument in many parts of it excludeth many others; I must account it a second birth of that work, if it might be translated into Latin, without manifest loss of the sense and matter. For this purpose I could not represent to myself any man into whose hands I do more earnestly desire that work should fall than yourself; for by that I have heard and read, I know no man a greater master in commanding words to serve matter. Nevertheless, I am not ignorant of the worth of your labours, whether such as your place and profession imposeth, or such as your own virtue may, upon your voluntary election, take in hand. But I can lay before you no other persuasions than either the work itself may affect you with; or the honour of his Majesty, to whom it is dedicated; or your particular inclination to myself; who as I never took so much comfort in any labours of mine own, so I shall never acknowledge myself more obliged in any thing to the labours of another, than in that which shall assist it. Which your labour, if I can by my place, profession, means, friends, travel, work, deed, requite unto you, I shall esteem myself so straitly bound thereunto, as I shall be ever most ready both to take and seek occasion of thankfulness. So leaving it nevertheless, *salva amicitia*, as reason is, to your good liking, I remain.

* Vir. Ecl. ii. 27. † Rawley's Resuscitatio.
‡ Thought. *Matthew's Collection of Letters.*
§ The monument here spoken of was erected in king Henry VII's chapel at Westminster, in the year 1606.
‖ The unworthiness of the history of England hath been long complained of by ingenious men, both of this and other nations. Sir Francis Bacon hath expressed himself much to the same effect, though more at large, in his second book of The Advancement of Learning, (p. 30,) where he carries this period of remarkable events somewhat higher than in this letter, beginning with the union of the roses under Henry VII. and ending with the union of the kingdoms under king James. A portion of time filled with so great and variable accidents both in church and state, and since so well discovered to the view of the world, that had other parts the same performance, we should not longer lie under any reproach of this kind. The reign of king Henry VII. was written by our author soon after his retirement, with so great beauty of style, and wisdom of observation, that nothing can be more entertaining; the truth of history not being disguised with the false colours of romance. It was so acceptable a present to the P. of Wales, that when he became king, he commanded him to proceed with the reign of king Henry VIII. But my lord Bacon meditating the history of nature, which he hardly lived to publish; his ill state of health, and succeeding death, put an end to this and other noble designs;

LXXXIII. TO THE LORD CHANCELLOR TOUCHING THE HISTORY OF BRITAIN.†

IT MAY PLEASE YOUR GOOD LORDSHIP,

SOME late act of his Majesty, referred to some former speech which I have heard from your lordship, bred in me a great desire, and the strength of desire a boldness to make an humble proposition to your lordship, such as in me can be no better than a wish; ‡ but if your lordship should apprehend it, it may take some good and worthy effect. The act I speak of, is the order given by his Majesty for the erection of a tomb or monument for our late sovereign queen Elizabeth; § wherein I may note much, but only this at this time, that as her Majesty did always right to his Majesty's hopes, so his highness doth in all things right to her memory; a very just and princely retribution. But from this occasion, by a very easy ascent, I passed farther, being put in mind, by this representative of her person, of the more true and more vive representation, which is of her life and government: for as statues and pictures are dumb histories, so histories are speaking pictures; wherein if my affection be not too great, or my reading too small, I am of this opinion, that if Plutarch were alive to write lives by parallels, it would trouble him both for virtue and fortune, to find for her a parallel amongst women. And though she was of the passive sex, yet her government was so active, as, in my simple opinion, it made more impression upon the several states of Europe, than it received from thence. But I confess unto your lordship I could not stay here, but went a little farther into the consideration of the times which have passed since king Henry VIII.; wherein I find the strangest variety, that in so little number of successions of any hereditary monarchy hath ever been known. The reign of a child; the offer of an usurpation, though it was but as a diary ague; the reign of a lady married to a foreigner; and the reign of a lady solitary and unmarried; so that as it cometh to pass in massy bodies, that they have certain trepidations and wavering before they fix and settle; so it seemeth that by the providence of God this monarchy, before it was to settle in his Majesty, and his generations, in which I hope it is now established for ever, hath had these prelusive changes in these barren princes. Neither could I contain myself here, as it is easier for a man to multiply than to stay a wish, but calling to remembrance the unworthiness of the history of England, ‖ in the main continuance thereof; and the partiality and obliquity of that of Scotland, in the latest and largest

author* that I have seen: I conceived it would be honour for his Majesty, and a work very memorable, if this island of Great Britain, as it is now joined in monarchy for the ages to come, so it were joined in history for the times past: and that one just and complete history were compiled of both nations. And if any man perhaps should think it may refresh the memory of former discords, he may satisfy himself with the verse "olim hæc meminisse juvabit:" for the ease being now altered, it is matter of comfort and gratulation to remember former troubles. Thus much, if it may please your lordship, is in the optative mood; and it is time that I did look a little into the potential; wherein the hope which I conceived was grounded upon three observations. The first, the nature of these times, which flourish in learning, both of art and language; which giveth hope not only that it may be done, but that it may be well done. Secondly, I do see that which all the world sees in his Majesty, both a wonderful judgment in learning, and a singular affection towards learning, and works which are of the mind more than of the hand. For there cannot be the like honour sought and found, in building of galleries,† and planting of elms along high-ways, and in those outward ornaments, wherein France is now so busy, things rather of magnificence than of magnanimity, as there is in the uniting of states,‡ pacifying of controversies,§ nourishing and augmenting of learning and arts, and the particular actions appertaining to these; of which kind Cicero judged truly, when he said to Cæsar, "Quantum operibus tuis detrahet vetustas, tantum addet laudibus." And lastly, I call to mind, that your lordship at some times hath been pleased to express unto me a great desire, that something of this nature should be performed; answerable indeed to your other noble and worthy courses and actions; joining and adding unto the great services towards his Majesty, which have, in small compass of time, been performed by your lordship, other great deservings, both of the church and commonwealth, and particulars: so as the opinion of so great and wise a man doth seem to me a good warrant both of the possibility and worth of the matter. But all this while I assure myself, I cannot be mistaken by your lordship, as if I sought an office or employment for myself; for no man knows better than your lordship, that if there were in me any faculty thereunto, yet neither my course of life nor profession would permit it; but because there be so many good painters‖ both for hand and colours, it needeth but encouragement and instructions to give life unto it. So in all humbleness I conclude my presenting unto your lordship this wish; which, if it perish, it is but a loss of that which is not. And so craving pardon that I have taken so much time from your lordship, I remain——

leaving the ecclesiastical and civil affairs of those times to be related by the learned pens of Dr. Burnet, notwithstanding the objections of the avowed enemies, and seeming friends to the reformation, and the lord Herbert of Cherbury; that I think there is not much of moment to be expected from a future hand. And for the annals of queen Elizabeth compiled by Mr. Camden, the esteem of them is as universal as the language in which they are written. Nor must I forget in this place to take notice of two fair and large volumes lately published in French by Monsieur de Larrey; where building upon the foundations laid by these gentlemen, and some other memoirs, he hath not forgotten to do much honour to the English nation: beginning his history also with Henry VII. *Stephens.*

* This I take to be meant of Buchanan's History of Scotland; a book much admired by some, though censured by many, for his partiality in favour of the lords, against Mary queen of the Scots, and the regal power. In other respects, archbishop Spotswood informs us that he penned it with such judgment and eloquence, as no country can show a better. *Stephens.*

† The magnificent gallery at the Louvre in Paris, built by Henry IV.

‡ The union of England and Scotland.

§ The conference at Hampton court held between the bishops and puritans, as they were then called, soon after the king's coming to the crown of England, and where his Majesty was the moderator. *Stephens.*

‖ Great masters. *Matth.*

¶ Rawley's Resuscitatio. ** Ibid.

LXXXIV. TO THE KING, UPON SENDING UNTO HIM A BEGINNING OF THE HISTORY OF HIS MAJESTY'S TIMES.¶

IT MAY PLEASE YOUR MAJESTY,

HEARING that your Majesty is at leisure to peruse story, a desire took me to make an experiment what I could do in your Majesty's times, which being but a leaf or two, I pray your pardon, if I send it for your recreation; considering that love must creep where it cannot go. But to this I add these petitions: First, that if your Majesty do dislike any thing, you would conceive I can amend it upon your least beck. Next, that if I have not spoken of your Majesty encomiastically, your Majesty would be pleased only to aseribe it to the law of a history; which doth not cluster together praises upon the first mention of a name, but rather disperseth and weaveth them through the whole narrative. And as for the proper place of commemoration, which is in the period of life, I pray God I may never live to write it. Thirdly, that the reason why I presumed to think of this oblation, was because whatsoever my disability be, yet I shall have that advantage which almost no writer of history hath had; in that I shall write of times not only since I could remember, but since I could observe. And lastly, that it is only for your Majesty's reading.

LXXXV. A LETTER OF EXPOSTULATION, TO SIR EDWARD COKE, ATTORNEY-GENERAL.**

MR. ATTORNEY,

I THOUGHT best, once for all, to let you know in plainness what I find of you, and what you shall find of me. You take to yourself a liberty to disgrace and disable my law, my experience, my discretion. What it pleaseth you, I pray, think of me: I am one that knows both mine own wants and other men's; and it may be, perchance, that mine mend, when others stand at a stay. And surely I may not endure, in public place, to be wronged without

repelling the same to my best advantage to right myself. You are great, and therefore have the more enviers, which would be glad to have you paid at another's cost. Since the time I missed the solicitor's place, the rather I think by your means, I cannot expect that you and I shall ever serve as attorney and solicitor together; but either to serve with another upon your remove, or to step into some other course; so as I am more free than ever I was from any occasion of unworthy conforming myself to you, more than general good manners, or your particular good usage shall provoke; and if you had not been short-sighted in your own fortune, as I think, you might have had more use of me. But that tide is passed. I write not this to show my friends what a brave letter I have written to Mr. Attorney; I have none of those humours; but that I have written is to a good end, that is, to the more decent carriage of my master's service, and to our particular better understanding one of another. This letter, if it shall be answered by you in deed, and not in word, I suppose it will not be worse for us both; else it is but a few lines lost, which for a much smaller matter I would have adventured. So this being to yourself, I for my part rest———

[Before June, 1606.]

LXXXVI. TO THE EARL OF SALISBURY, CONCERNING THE SOLICITOR'S PLACE.*

MAY IT PLEASE YOUR LORDSHIP,

I AM not privy to myself of any such ill deserving towards your lordship, as that I should think it an impodent thing to be a suitor for your favour in a reasonable matter; your lordship being to me as, with your good favour, you cannot cease to be; but rather it were a simple and arrogant part in me to forbear it.

It is thought Mr. Attorney shall be chief justice of the common pleas; in case Mr. Solicitor rise, I would be glad now at last to be solicitor; chiefly because I think it will increase my practice, wherein God blessing me a few years, I may mend my state, and so after fall to my studies and ease; whereof one is requisite for my body, and the other serveth for my mind; wherein if I shall find your lordship's favour, I shall be more happy than I have been, which may make me also more wise. I have small store of means about the king, and to sue myself is not fit: and therefore I shall leave it to God, his Majesty, and your lordship, for I must still be next the door. I thank God, in these transitory things I am well resolved. So beseeching your lordship not to think this letter the less humble, because it is plain, I rest, &c.

1606. FR. BACON.

* Stephens's First Collection, p. 28.

LXXXVII. ANOTHER LETTER TO THE EARL OF SALISBURY, TOUCHING THE SOLICITOR'S PLACE.†

IT MAY PLEASE YOUR LORDSHIP,

I AM not ignorant how mean a thing I stand for, in desiring to come into the solicitor's place: for I know well, it is not the thing it hath been; time having wrought alteration both in the profession, and in that special place. Yet because, I think, it will increase my practice, and that it may satisfy my friends, and because I have been voiced to it, I would be glad it were done. Wherein I may say to your lordship, in the confidence of your poor kinsman, and of a man by you advanced, "Tu idem fer opem, qui spem dedisti:" for, I am sure, it was not possible for a man living to have received from another more significant and comfortable words of hope; your lordship being pleased to tell me, during the course of my last service, that you would raise me; and that when you had resolved to raise a man, you were more careful of him than himself; and that what you had done for me in my marriage, was a benefit to me, but of no use to your lordship; and therefore I might assure myself, you would not leave me there; with many like speeches, which I know my duty too well, to take any other hold of than the hold of a thankful remembrance. And I acknowledge, and all the world knoweth, that your lordship is no dealer of holy water, but noble and real: and, on my part, I am of a sure ground, that I have committed nothing that may deserve alteration. And therefore my hope is, your lordship will finish a good work, and consider, that time groweth precious with me, that I am now *in vergentibus annis*. And although I know that your fortune is not to need a hundred such as I am, yet I shall be ever ready to give you my first and best fruits; and to supply, as much as in me lieth, worthiness by thankfulness.

† Rawley's Resuscitatio.

LXXXVIII. TO THE LORD CHANCELLOR, CONCERNING THE SOLICITOR'S PLACE.‡

IT MAY PLEASE YOUR GOOD LORDSHIP,

As I conceived it to be a resolution, both with his Majesty, and among your lordships of his council, that I should be placed solicitor, and the solicitor to be removed to be the king's serjeant; so I most thankfully acknowledge your lordship's furtherance and forwardness therein; your lordship being the man that first devised the mean: wherefore my humble request to your lordship is, that you would set in with some strength to finish this your work; which, I assure your lordship, I desire the rather, because being placed, I hope for many favours at last to be able to do you some better service. For as I am, your lordship cannot use me; nor scarcely indeed know me. Not that I vainly think I shall be able to do any great matters, but certainly it will

‡ Ibid.

frame me to use a more industrious observance and application to such, as I honour so much as I do your lordship; and not, I hope, without some good offices, which may now and then deserve your thanks. And herewithal, good my lord, I humbly pray your lordship to consider, that time groweth precious with me, and that a married man is seven years elder in his thoughts the first day: and therefore what a discomfortable thing is it for me to be unsettled still! Certainly, were it not that I think myself born to do my sovereign service, and therefore in that station I will live and die; otherwise for mine own private comfort, it were better for me that the king should blot me out of his book; or that I should turn my course to endeavour to serve in some other kind, than for me to stand thus at a stop; and to have that little reputation, which by my industry I gather, to be scattered and taken away by continual disgraces, every new man coming above me. Sure I am, I shall never have fairer promises and words from all your lordships. For I know not what my services are, saving that your lordships told me they were good, and I would believe you in a much greater matter. Were it nothing else, I hope the modesty of my suit deserveth somewhat; for I know well the solicitor's place is not as your lordship left it; time working alteration, somewhat in the profession, much more in that special place. And were it not to satisfy my wife's friends, and to get myself out of being a common gaze and a speech, I protest before God I would never speak word for it. But to conclude, as my honourable lady your wife was some mean to make me to change the name of another; so if it please you help me to change mine own name, I can be but more and more bounden to you: and I am much deceived, if your lordship find not the king well inclined, and my lord of Salisbury forward and affectionate.

1606.

LXXXIX. TO MY LADY PACKINGTON, IN ANSWER TO A MESSAGE BY HER SENT.*

MADAM,

You shall with right good will be made acquainted with any thing that concerneth your daughters, if you bear a mind of love and concord: otherwise you must be content to be a stranger unto us: for I may not be so unwise as to suffer you to be an author or occasion of dissension between your daughters and their husbands, having seen so much misery of that kind in yourself.

And above all things I will turn back your kindness, in which you say, you will receive my wife if she be cast off; for it is much more likely we have occasion to receive you being cast off, if you remember what is passed. But it is time to make an end of those follies: and you shall at this time pardon me this one fault of writing to you; for I mean to do it no more till you use me and respect me as you ought. So wishing you better than it seemeth you will draw upon yourself, I rest,

Yours,
FR. BACON.

* From an old copy of Sir Francis Bacon's Letters.

XC. TO THE KING TOUCHING THE SOLICITOR'S PLACE.†

How honestly ready I have been, most gracious sovereign, to do your Majesty humble service, to the best of my power, and in a manner beyond my power, as I now stand, I am not so unfortunate but your Majesty knoweth. For both in the commission of union, the labour whereof, for men of my profession, rested most upon my hand, and this last parliament, in the bill of the subsidy, both body and preamble; in the bill of attainders, both Tresham and the rest; in the matter of purveyance; in the ecclesiastical petitions; in the grievances; and the like; as I was ever careful, and not without good success, sometimes to put forward that which was good, sometimes to keep back that which was not so good; so your Majesty was pleased kindly to accept of my services, and to say to me, such conflicts were the wars of peace, and such victories the victories of peace; and therefore such servants that obtained them were, by kings that reign in peace, no less to be esteemed, than services of commanders in the wars. In all which nevertheless I can challenge to myself no sufficiency, but that I was diligent and reasonably happy to execute those directions, which I received either immediately from your royal mouth, or from my lord of Salisbury: at which time it pleased your Majesty also to promise and assure me, that upon the remove of the then attorney I should not be forgotten, but brought into ordinary place. And this was after confirmed to me, by many of my lords, and towards the end of the last term, the manner also in particular was spoken of; that is, that Mr. Solicitor should be made your Majesty's serjeant, and I solicitor; for so it was thought best to sort with both our gifts and faculties for the good of your service; and of this resolution both court and country took knowledge. Neither was this any invention or project of mine own; but moved from my lords, and I think first from my lord chancellor; whereupon resting, your Majesty well knoweth I never opened my mouth for the greater place; though I am sure I had two circumstances, that Mr. Attorney, that now is, could not allege: the one, nine years service of the crown; the other, the being cousin germain to the lord of Salisbury, whom your Majesty esteemeth and trusteth so much. But for the less place, I conceived it was meant me. But after that Mr. Attorney Hobart was placed, I heard no more of my preferment; but it seemed to be at a stop, to my great disgrace and discouragement. For, gracious sovereign, if still, when the waters are stirred, another shall be put in before me, your Majesty had need work a miracle, or else I shall be still a lame man

† Rawley's Resuscitatio.

to do your Majesty service. And therefore my most humble suit to your Majesty is; that this, which seemed to me intended, may speedily be performed: and I hope, my former service shall be but as beginnings to better, when I am better strengthened: for, sure I am, no man's heart is fuller, I say not but many may have greater hearts, but I say, not fuller of love and duty towards your Majesty and your children; as, I hope, time will manifest against envy and detraction, if any be. To conclude, I most humbly crave pardon for my boldness, and rest——

1606.

XCI. TO THE EARL OF SALISBURY, UPON A NEW-YEAR'S TIDE.*

It may please your good lordship,

Having no gift to present you with in any degree proportionable to my mind, I desire nevertheless to take the advantage of a ceremony to express myself to your lordship; it being the first time I could make the like acknowledgment, when I stood out of the person of a suitor: wherefore I most humbly pray your lordship to think of me, that, now it hath pleased you, by many effectual and great benefits, to add the assurance and comfort of your love and favour to that precedent disposition, which was in me to admire your virtue and merit; I do esteem whatsoever I have or may have in this world, but as trash, in comparison of having the honour and happiness to be a near and well accepted kinsman to so rare and worthy a counsellor, governor, and patriot: for having been a studious, if not a curious observer of antiquities of virtue, as of late pieces, I forbear to say to your lordship what I find and conceive; but to any other I would think to make myself believed. But not to be tedious in that which may have the show of a compliment, I can but wish your lordship many happy years, many more than your father had; even so many more, as we may need you more. So I remain——

XCII. TO MR. MATTHEW, IMPRISONED FOR RELIGION.†

Mr. Matthew,

Do not think me forgetful or altered towards you: but if I should say, I could do you any good, I should make my power more than it is. I do hear that which I am right sorry for, that you grow more impatient and busy than at first; which maketh me exceedingly fear the issue of that which seemeth not to stand at a stay. I myself am out of doubt, that you have been miserably abused, when you were first seduced; but that which I take in compassion, others may take in severity. I pray God, that understandeth us all better than we understand one another, contain you, even as I hope he will, at the least, within the bounds of loyalty to his Majesty, and natural piety towards your country. And I entreat you much, sometimes to meditate upon the extreme effects of superstition in this last powder treason; fit to be tabled and pictured in the chambers of meditation, as another hell above the ground: and well justifying the censure of the heathen, that superstition is far worse than atheism; by how much it is less evil to have no opinion of God at all, than such as is impious towards his divine majesty and goodness. Good Mr. Matthew, receive yourself back from these courses of perdition. Willing to have written a great deal more, I continue, &c.

XCIII. TO MR. MATTHEW.‡

Sir,

Two letters of mine are now already walking towards you; but so that we might meet, it were no matter though our letters should lose their way. I make a shift in the mean time to be glad of your approaches, and would be more glad to be an agent for your presence, who have been a patient by your absence. If your body by indisposition make you acknowledge the healthful air of your native country; much more do I assure myself, that you continue to have your mind no way estranged. And as my trust with the state is above suspicion, so my knowledge both of your loyalty and honest nature will ever make me show myself your faithful friend without scruple. You have reason to commend that gentleman to me, by whom you sent your last, although his having travelled so long amongst the sadder nations of the world make him much the less easy upon small acquaintance to be understood. I have sent you some copies of my book of the "Advancement," which you desired; and a little work of my recreation, which you desired not. My "Instauration" I reserve for our conference; it sleeps not. Those works of the "Alphabet" are in my opinion of less use to you where you are now, than at Paris; and therefore I conceived, that you had sent me a kind of tacit countermand of your former request. But in regard that some friends of yours have still insisted here, I send them to you; and for my part, I value your own reading more than your publishing them to others. Thus, in extreme haste, I have scribbled to you I know not what, which therefore is the less affected, and for that very reason will not be esteemed the less by you.

XCIV. TO SIR GEORGE CAREW,§ ON SENDING HIM THE TREATISE "IN FELICEM MEMORIAM ELIZABETHÆ."‖

Being asked a question by this bearer, an old ser-

* Rawley's Resuscitatio. † Ibid.

‡ Sir Tobie Matthew's Collection of Letters, p. 14.

§ Sir George Carew of Cornwall was master in chancery in the time of queen Elizabeth; and in 1597 sent ambassador into Poland; and in 1606 went to the court of France with the like character. After about three years' continuance, he was recalled by the king to make use of his services at home; but he survived not many years. M. de Thou in a letter to Mr. Camden in 1613, very much laments his death; as losing a friend he much valued, and an assistant in the prosecution of his history: having received helps from him in that part which relates to the dissensions between the Poles and the Swedes in the year 1598, as appears before the contents of book CXXI. *Stephens.* ‖ Rawley's Resuscitatio.

vant of my brother Anthony Bacon's, whether I would command him any thing into France; and being at better leisure than I would, in regard of sickness, I began to remember that neither your business nor mine, though great and continual, can be, upon an exact account, any just occasion why so much good-will as hath passed between us should be so much discontinued as it hath been. And therefore, because one must begin, I thought to provoke your remembrance of me by a letter: and thinking to fill it with somewhat besides salutations, it came to my mind, that this last summer vacation, by occasion of a factious book that endeavoured to verify "Misera Fœmina," the addition of the pope's bull, upon queen Elizabeth, I did write a few lines in her memorial, which I thought you would be pleased to read, both for the argument, and because you were wont to bear affection to my pen. "Verum, ut alind ex alio," if it came handsomely to pass, I would be glad the president De Thou, who hath written a history, as you know, of that fame and diligence, saw it; chiefly because I know not whether it may not serve him for some use in his story; wherein I would be glad he did write to the truth, and to the memory of that lady, as I perceive by that he hath already written he is well inclined to do. I would be glad also, it were some occasion, such as absence may permit, of some acquaintance or mutual notice between us. For though he hath many ways the precedence, chiefly in worth, yet this is common to us both, that we serve our sovereigns in places of law eminent; and not ourselves only, but that our fathers did so before us. And lastly, that both of us love learning and liberal sciences, which was ever a bond of friendship in the greatest distance of places. But of this I make no farther request, than your own occasions and respects, to me unknown, may farther or limit; my principal purpose being to salute you, and to send you this token: whereunto I will add my very kind commendations to my lady; and so commit you both to God's holy protection.

* Rawley's Resuscitatio. † Ibid.

‡ The king and kingdom being exasperated by the gunpowder-treason, thought it necessary to make some more effectual laws to distinguish between those papists that paid due obedience to the king, and those that did not. For which end, in the parliament which met upon the memorable fifth of November, 1605, a new oath of allegiance was framed; declaring that the pope, &c. had no power to depose kings, absolve their subjects, or dispose of their kingdoms, &c. The court of Rome, jealous of losing an authority they had been many years assuming; and especially perceiving that many papists submitted to the oath, as not intreuching upon matters of faith, severely inhibited them from taking the same by two briefs, the one quickly succeeding the other. The king, on the other hand, esteeming it a point that nearly concerned him, had recourse to those arms he could best manage, and encountered the briefs by a premonition directed to all christian princes; exhorting them to espouse the common quarrel. Cardinal Bellarmine, who, by virtue of his title, thought himself almost equal to princes, and by his great learning much superior, enters the lists with the king. The seconds coming in on both sides, no man was thought fitter to engage this remarkable antagonist than that great and renowned prelate in learning and sanctity, Dr. Andrews, then bishop of Ely, and after of Winchester. Neither were the reformed of the French church idle spectators; as Monsieur du Moulin, and Monsieur du Plessis Mornay: this last published a book at Saumur in 1611, entitled, "The Mystery of Iniquity," &c. showing by what degrees the bishops of Rome had raised themselves to their present grandeur, asserting the right of sovereign princes against the positions of the cardinals Bellarmine and Baronius: the French edition whereof he dedicated to Lewis the thirteenth, and the Latin to king James. This last performance was presented to king James, with a letter exhorting him, "de quitter d'oresenavant la plume, pour aller espée à la main desuicher l'antichrist hors de sa forteresse:" to give over waging a war with his pen, and to destroy the papal power with his sword; which he excites the king to attempt in the conclusion of his dedication, with so much life, that I shall crave the liberty to insert part of his own words, in order to declare the spirit and zeal of a gentleman, who for his valour and conduct in war, his judgment in council, his dexterity in despatches, and his firmness and constancy in religion, in the defence of which, hand, and tongue, and pen, were employed, is far above all the titles of honour that can be given.

"Hanc tu, rex potentissime, laudem, hanc tamream, absit ut tibi præripi patiaris; cuiquam alii servatam velis; non sanguine, non vita, non carioribus cæteris redemptam malis. At tu, Jehova Deus, cujus res, cujus gloria, hic proprie agitur; cujus absque ope frustra sint vota, suspiria, molimina nostra; evigila, exsurge, robur indue, justitiam ut loricam. Voca servum tuum per nomen suum, prehende dexteram Uncti tui, ambula ante faciem ejus; complanentur valles, subsidant montes, consternantur fluvii, pateant januæ, conterantur vectes, contremiscant populi, corruat Jericho illa in spiritu oris tui, in conspectu ejus. Ego sexagenario licet jam major, fateri tunc ipsius hæream indivulsus; inter angusta, inter aspera Alpium senectam exuam; inter principia prælium misceam; inter triumphos præcinente angelo *Cecidit* illud conge-

XCV. TO THE KING, UPON PRESENTING THE "DISCOURSE TOUCHING THE PLANTATION OF IRELAND."*

IT MAY PLEASE YOUR EXCELLENT MAJESTY,

I KNOW not better how to express my good wishes of a new-year to your Majesty, than by this little book, which in all humbleness I send you. The style is a style of business, rather than curious or elaborate. And herein I was encouraged by my experience of your Majesty's former grace, in accepting of the like poor field-fruits touching the union. And certainly I reckon this action as a second brother to the union. For I assure myself that England, Scotland, and Ireland well united, is such a trefoil as no prince except yourself, who are the worthiest, weareth in his crown; "Si potentia reducatur in actum." I know well, that for me to beat my brains about these things, they be "majora quam pro fortuna;" but yet they be "minora quam pro studio ac voluntate." For as I do yet bear an extreme zeal to the memory of my old mistress queen Elizabeth, to whom I was rather bound for her trust than her favour; so I must acknowledge myself more bound to your Majesty both for trust and favour; whereof I will never deceive the one, as I can never deserve the other. And so in all humbleness kissing your Majesty's sacred hand, I remain.

XCVI. TO THE BISHOP OF ELY, UPON SENDING HIS WRITING ENTITLED, "COGITATA ET VISA."†

MY VERY GOOD LORD,

Now your lordship hath been so long in the church and the palace, disputing between kings and popes:‡ methinks you should take pleasure to look into the field, and refresh your mind with some mat-

ter of philosophy; though that science be now through age waxed a child again, and left to boys and young men. And because you were wont to make me believe you took liking to my writings, I send you some of this vacation's fruits; and thus much more of my mind and purpose. I hasten not to publish; perishing I would prevent; and I am forced to respect as well my times as the matter. For with me it is thus; and I think, with all men in my case: if I bind myself to an argument, it loadeth my mind; but if I rid my mind of the present cogitation, it is rather a recreation. This hath put me into these miscellanies; which I purpose to suppress, if God give me leave to write a just and perfect volume of philosophy, which I go on with, though slowly. I send not your lordship too much, lest it may glut you. Now let me tell you what my desire is: if your lordship be so good now, as when you were the good dean of Westminster, my request to you is, that not by pricks, but by notes, you would mark unto me whatsoever shall seem unto you either not current in the style, or harsh to credit and opinion, or inconvenient for the person of the writer; for no man can be judge and party; and when our minds judge by reflection on ourselves, they are more subject to error. And though, for the matter itself, my judgment be in some things fixed, and not accessible by any man's judgment that goeth not my way; yet even in those things, the admonition of a friend may make me express myself diversely. I would have come to your lordship, but that I am hastening to my house in the country: and so I commend your lordship to God's goodness.

XCVII. TO SIR THOMAS BODLEY, AFTER HE HAD IMPARTED TO HIM A WRITING, ENTITLED, "COGITATA ET VISA."*

Sir,

In respect of my going down to my house in the country, I shall have miss of my papers, which I pray you therefore to return unto me. You are, I bear you witness, slothful, and you help me nothing; so as I am half in conceit, that you affect not the argument: for myself, I know well, your love and effect. I can say no more to you, but "non canimus surdis, respondent omnia sylvæ." If you be not of the lodgings chalked up, whereof I speak in my preface, I am but to pass by your door. But if I had you a fortnight at Gorhambury, I would make you tell me another tale; or else I would add a cogitation against libraries, and be revenged on you that way. I pray you send me some good news of Sir Thomas Smith; and commend me very kindly to him. So I rest——

1607.

minem; sanctæ huic lætitiæ totus immergar, æternæ contiguus immoriar raptus."

But this was an enterprise suited to the warlike genius of Du Plessis, great master of Henry the fourth, and not to the peaceable spirit of king James. Besides, the king, in his answer of the 20th of October, 1611, after he had excused his long silence, and very much commended this author in the design of his book, and as freely called the pope antichrist,

XCVIII. SIR THOMAS BODLEY'S LETTER TO SIR FRANCIS BACON, ABOUT HIS "COGITATA ET VISA," WHEREIN HE DECLARETH HIS OPINION FREELY TOUCHING THE SAME.†

Sir,

As soon as the term was ended, supposing your leisure was more than before, I was coming to thank you two or three times, rather choosing to do it by word than by letter: but I was still disappointed of my purpose, as I am at this present upon an urgent occasion, which doth tie me fast to Fulham, and hath now made me determine to impart my mind in writing.

I think you know I have read your "Cogitata et Visa," which I protest I have done with great desire, repuling it a token of your singular love that you joined me with those your chiefest friends, to whom you would commend the first perusal of your draught; for which, I pray you, give me leave to say but this unto you:

First, that if the depth of my affection to your person and spirit, to your works, and your words, and to all your abilities, were as highly to be valued, as your affection is to me, it might walk with yours arm in arm, and claim your love by just desert. But there can be no comparison where our states are so uneven, and our means to demonstrate our affections so different: insomuch as for my own, I must leave it to be prized in the nature that it is; and you shall evermore find it most addicted to your worth.

As touching the subject of your book, you have set afoot so many rare and noble speculations, as I cannot choose but wonder, and I shall wonder at it ever, that, your expense of time considered in your public profession, which hath in a manner no acquaintance with scholarship or learning, you should have culled out the quintessence, and sucked up the sap of the chiefest kind of learning.

For howsoever in some points you do vary altogether from that which is, and hath been ever, the received doctrine of our schools, and was always by the wisest, as still they have been deemed, of all nations and ages, adjudged the truest; yet it is apparent, that in those very points, and in all your proposals and plots in that book, you show yourself a master workman.

For myself, I must confess, and I speak it *ingenuè*, that for the matter of learning, I am not worthy to be reckoned in the number of smatterers.

And yet because it may seem, that being willing to communicate your treatise with your friends, you are likewise willing to listen to whatsoever I or others can except against it; I must deliver unto you for my private opinion, that I am one of that crew that say there is, and we profess, a far greater

and Rome Babylon, conceives that neither the Scriptures, the doctrine nor example of the primitive church, would sufficiently justify an offensive war, undertaken purely for religion; could he in prudence expect any success in such an attempt. *Stephens.*

* Rawley's Resuscitatio.

† Appendix to a Collection of Letters of Archbishop Usher, Letter xiv. p. 19.

holdfast of certainty in our sciences, than you by your discourse will seem to acknowledge.

For whereas, first, you do object the ill success and errors of practitioners in physic, you know as well they do proceed of the patient's nnruliness, for not one of a hundred doth obey his physician in observing his cantels; or by misinformation of their own indispositions, for few are able in this kind to explicate themselves; or by reason their diseases are by nature incurable, which is incident, you know, to many sorts of maladies; or for some other hidden cause which cannot be discovered by course of conjecture. Howbeit, I am full of this belief, that as physic is ministered now-a-days by physicians, it is much to be ascribed to their negligence or ignorance, or other touch of imperfection, that they speed no better in their practice: for few are found of that profession so well instructed in their art, as they might by the precepts which their art doth afford; which though it be defective in regard of such perfection, yet for certain it doth flourish with admirable remedies, snch as tract of time hath taught by experimental events, and are the open highway to that principal knowledge that you recommend.

As for alchemy, and magic, some conclusions they have that are worthy the preserving; but all their skill is so accompanied with subtleties and guiles, as both the crafts and craft-masters are not only despised, but named with derision. Whereupon to make good your principal assertion, methinks you should have drawn your examples from that which is taught in the liberal sciences, not by picking out cases that happen very seldom, and may by all confession be subject to reproof; but by controlling the generals, and grounds, and eminent positions, and aphorisms, which the greatest artists and philosophers have from time to time defended.

For it goeth for current amongst all men of learning, that those kind of arts which clerks in times past did term quadrivials, confirm their propositions by infallible demonstrations.

And likewise in the trivials such lessons and directions are delivered nnto us, as will effect very near, or as mnch altogether, as every faculty doth promise. Now in case we should concur to do as you advise, which is, to renounce onr common notions, and cancel all our theorems, axioms, rules, and tenets, and so to come babes "ad regnnm naturæ," as we are willed by Scriptures to come "ad regnum cœlorum;" there is nothing more certain in my understanding, than that it would instantly bring us to barbarism, and, after many thousand years, leave us more unprovided of theorical furniture than we are at this present: for that were indeed to become very babes, or *tabula rasa*, when we shall leave no impression of any former principles, but be driven to begin the world again, and to travel by trials of axioms and sense, which are your proofs by particulars, what to place *in intellectu*, for our general conceptions; it being a maxim of all men's approving, "In intellectn nihil esse, quod non prius fuit in sensn;" and so in appearance it would befall us, that till Plato's year be come about, our insight in learning would be of less reckoning than now it is accounted.

As fur that which you inculcate, of a knowledge more excellent than now is among us, which experience might produce, if we would but essay to extract it out of nature by particular probations, it is no more upon the matter, but to incite us unto that, which without instigation by a natural instinct men will practise of themselves: for it cannot in reason be otherwise thought, but that there are infinite numbers in all parts of the world, for we may not in this case confine our cogitations within the bounds of Europe, which embrace the course that you purpose, with all the diligence and care that ability can perform; for every man is born with an appetite of knowledge, wherewith he cannot be so glutted, bnt still, as in a dropsy, thirst after more.

But yet why they should hearken to any such persuasion, as wholly to abolish those settled opinions and general theorems, to which they attained by their own and their ancestors' experience, I see nothing yet alleged to induce me to think it.

Moreover, I may speak, as I should snppose with good probability, that if we should make a mental survey what is like to be effected all the world over, those five or six inventions which you have selected, and imagine to be but of modern standing, would make but a slender show amongst so many hundreds of all kinds of natnres, which are daily brought to light by the enforcement of wit, or casual events, and may be compared, or partly preferred above those that you have named.

But were it so here that all were admitted, that you can require, for the augmentation of our knowledge; and that all our theorems and general positions were utterly extinguished with a new substitution of others in their places, what hope may we have of any benefit of learning by this alteration?

Assuredly, as soon as the new are brought with their additions *ad ἀκμήν*, by the inventors and their followers, by an interchangeable course of natural things they will fall by degrees to be buried in oblivion, and so on continuance to perish outright; and that perchance npon the like to your present pretences, by proposal of some means to advance all our knowledge to a higher pitch of perfectness: for still the same defects that antiquity found will reside in mankind.

And therefore, other issues of their actions, devices, and studies are not to be expected, than is apparent by records were in former times observed.

I remember here a note which Patereulus made of the incomparable wits of the Grecians and Romans in their flourishing state, that there might be this reason of their notable downfal in their issue that came after; because by nature "Quod summo studio petitum est ascendit in summum, difficilisque in perfecto mora est;" insomuch that men perceiving that they could go no farther, being come to the top, they turned back again of their own accord, forsaking those studies that are most in request, and betaking themselves to new endeavours, as if the thing that they songht had been by prevention surprised by others.

So it fared in particular with the eloqnence of that age, that when their successors found that hardly

they could equal, by no means exeel their predecessors, they began to neglect the study thereof, and both to write and speak for many hundred years in a rustical manner; till this latter revolution brought the wheel about again, by inflaming gallant spirits to give the onset afresh, with straining and striving to climb unto the top and height of perfection, not in that gift only, but in every other skill in any part of learning.

For I do not hold it an erroneous conceit to think of every science, that as now they are professed, so they have been before in all precedent ages, though not alike in all places, nor at all times alike in one and the same place, but according to the changings and twinings of times, with a more exact and plain, or with a more rude and obscure kind of teaching.

And if the question should be asked, what proof I have of it, I have the doctrine of Aristotle, and of the deepest learned clerks, of whom we have any means to take any notice, that as there is of other things, so there is of sciences, *ortus et interitus*, which is also the meaning, if I should expound it, of "nihil novum sub sole," and is as well to be applied *ad facta*, as *ad dicta*, "ut nihil neque dictum neque factum, quod non est dictum et factum prius." I have farther for my warrant that famous complaint of Solomon to his son against the infinite making of books in his time, of which in all congruity it must needs be understood, that a great part were observations and instructions in all kind of literature: and those there is not now so much as one petty pamphlet, only some parts of the Bible excepted, remaining to posterity.

As then there was not, in like manner, any footing to be found of millions of authors that were long before Solomon, and yet we must give credit to that which he affirmed, that whatsoever was then, or had been before, it could never be truly pronounced of it, Behold this new.

Whereupon I must for my final conclusion infer, seeing all the endeavours, study, and knowledge of mankind, in whatsoever art or science, have ever been the same, as they are at this present, though full of mutabilities, according to the changes and accidental occasions of ages and countries, and clerks' dispositions, which can never be but subject to intention and remission, both in their devices and practices of their knowledge: if now we should accord in opinion with you, First, to condemn our present knowledge of doubts and incertitudes, which you confirm but by averment, without other force of argument: And then to disclaim all our axioms and maxims, and general assertions that are left by tradition from our elders to us, which, for so it is to be pretended, have passed all probations of the sharpest wits that ever were: And lastly, to devise, being now become again as it were *obecedarii*, by the frequent spelling of particulars to come to the notice of the true generals, and so afresh to create new principles of sciences: the end of all would be that, when we shall be dispossessed of the learning which we have, all our consequent travels will but help us in a circle to conduct us to the place from whence we set forward, and bring us to the happiness to be restored *in integrum:* which will require as many ages as have marched before us, to be perfectly achieved.

And this I write with no dislike of increasing our knowledge with new-found devices, which is undoubtedly a practice of high commendation, in regard of the benefit they will yield for the present; that the world hath ever been, and will assuredly for ever continue very full of such devisors, whose industry hath been very obstinate and eminent that way, and hath produced strange effects, above the reach and the hope of men's common capacities; and yet our notions and theorems have always kept in grace both with them, and with the rarest that ever were named among the learned.

By this you see to what boldness I am brought by your kindness, that if I seem to be too saucy in this contradiction, it is the opinion that I hold of your noble disposition, and of the freedom in these cases that you will afford your special friend, that hath induced me to do it. And although I myself, like a carrier's horse, cannot balk the beaten way in which I have been trained, yet such is my censure of your "Cogitata," that I must tell you, to be plain, you have very much wronged yourself and the world, to smother such a treasure so long in your coffer; for though I stand well assured, for the tenor and subject of your main discourse, you are not able to impannel a substantial jury in any university that will give up a verdict to acquit you of error, yet it cannot be gainsaid, but all your treatise over doth abound with choice conceits of the present state of learning, and with so worthy contemplations of the means to procure it, as may persuade any student to look more narrowly to his business, not only by aspiring to the greatest perfection of that which is now-a-days divulged in the sciences, but by diving yet deeper into, as it were, the bowels and secrets of nature, and by enforcing of the powers of his judgment and wit, to learn of St. Paul, "consectari melora dona:" which course, would to God, to whisper so much in your ear, you had followed at the first, when you fell into the study of such a study as was not worthy such a student. Nevertheless being so as it is, that you are therein settled, and your country soundly served, I cannot but wish with all my heart, as I do very often, that you may gain a fit reward to the full of your deserts, which I hope will come with heaps of happiness and honour.

Yours to be used and commanded,

THO. BODLEY.

From Fulham, Feb. 19, 1607.

POSTSCRIPT.

SIR,

ONE kind of boldness doth draw on another, insomuch as, methinks, I should offend not to signify, that before the transcript of your book be fitted for the press, it will be requisite for you to cast a censor's eye upon the style and the elocution; which in the framing of some periods, and in divers words and phrases, will hardly go for current, if the copy brought to me be just the same that you would publish.

XCIX. TO MR. MATTHEW, UPON SENDING TO HIM A PART OF "INSTAURATIO MAGNA."*

Mr. Matthew,

I plainly perceive by your affectionate writing touching my work, that one and the same thing affecteth us both; which is, the good end to which it is dedicated; for as to any ability of mine, it cannot merit that degree of approbation. For your caution for church-men and church-matters, as for any impediment it might be to the applause and celebrity of my work, it moveth me not; but as it may hinder the fruit and good which may come of a quiet and calm passage to the good-port to which it is bound, I hold it a just respect; so as to fetch a fair wind I go not too far about. But the truth is, that I at all have no occasion to meet them in my way; except it be as they will needs confederate themselves with Aristotle, who, you know, is intemperately magnified by the schoolmen; and is also allied, as I take it, to the Jesuits, by Faber, who was a companion of Loyola, and a great Aristotelian. I send you at this time the only part which hath any harshness; and yet I framed to myself an opinion, that whosoever allowed well of that preface, which you so much commend, will not dislike, or at least ought not to dislike, this other speech of preparation; for it is written out of the same spirit, and out of the same necessity: nay, it doth more fully lay open, that the question between me and the ancients, is not of the virtue of the race, but of the rightness of the way. And to speak truth, it is to the other but as *palma* to *pugnus*, part of the same thing more large. You conceive aright, that in this and the other, you have commission to impart and communicate them to others according to your discretion. Other matters I write not of. Myself am like the miller of Granchester, that was wont to pray for peace amongst the willows; for while the winds blew, the windmills wrought, and the water-mill was less customed. So I see that controversies of religion must hinder the advancement of sciences. Let me conclude with my perpetual wish towards yourself, that the approbation of yourself, by your own discreet and temperate carriage, may restore you to your country, and your friends to your society. And so I commend you to God's goodness.

Gray's-Inn, Oct. 10, 1609.

C. TO MR. MATTHEW.†

Sir,

I thank you for the last, and pray you to believe, that your liberty in giving opinion of those writings which I sent you, is that which I sought, which I expected, and which I take in exceeding good part; so good as that it makes me recontinue, or rather continue my hearty wishes of your company here, that so you might use the same liberty concerning my actions, which now you exercise concerning my writings. For that of queen Elizabeth, your judgment of the temper and truth of that part, which concerns some of her foreign proceedings, concurs fully with the judgment of others, to whom I have communicated part of it; and as things go, I suppose they are likely to be more and more justified and allowed. And whereas you say, for some other part, that it moves and opens a fair occasion, and broad way, into some field of contradiction: on the other side it is written to me from the lieger ‡ at Paris, and some others also, that it carries a manifest impression of truth with it, and that it even convinces as it grows. These are their very words; which I write not for mine own glory, but to show what variety of opinion rises from the disposition of several readers. And I must confess my desire to be, that my writings should not court the present time, or some few places, in such sort as might make them either less general to persons, or less permanent in future ages. As to the "Instauration," your so full approbation thereof I read with much comfort, by how much more my heart is upon it; and by how much less I expected consent and concurrence in a matter so obscure. Of this I can assure you, that though many things of great hope decay with youth, and multitude of civil businesses is wont to diminish the price, though not the delight of contemplations, yet the proceeding in that work doth gain with me upon my affection and desire, both by years and businesses. And therefore I hope, even by this, that it is well pleasing to God, from whom and to whom all good moves. To him I most heartily commend you.

CI. TO MR. MATTHEW.§

Mr. Matthew,

I heartily thank you for your letter of the 10th of February, and am glad to receive from you matter both of encouragement and of advertisement touching my writings. For my part I do wish, that since there is no *lumen siccum* ‖ in the world, but all *madidum*, and *maceratum*, infused in affections, and bloods, or humours, that these things of mine had those separations that might make them more acceptable: so that they claim not so much acquaintance of the present times, as they be thereby the less apt to last. And to show you that I have some purpose to new-mould them, I send you a leaf or two of the preface, carrying some figure of the whole work. Wherein I purpose to take that which I count real and effectual of both writings; and chiefly to add a pledge, if not payment, to my promises, I send you

* Rawley's Resuscitatio.
† Sir Toby Matthew's Collection of Letters, p. 12.
‡ Sir George Carew.
§ Rawley's Resuscitatio.
‖ Our author alludes to one of the dark sayings of Heraclitus, that dry light is ever the best; which in another place he thus expounds: "Certainly the light that a man receiveth by counsel from another, is drier and purer than that which cometh from his own understanding and judgment, this being ever infused and drenched in his affections." *Stephens.*

also a memorial of queen Elizabeth; to requite your eulogy of the late duke of Florence's* felicity. Of this, when you were here, I showed you some model; at what time, methonght, you were more willing to hear Julius Cæsar, than queen Elizabeth, commended. But this which I send is more full, and hath more of the narrative: and farther, hath one part that, I think, will not be disagreeable either to you or that place; being the true tract of her proceedings towards the catholics, which are infinitely mistaken. And though I do not imagine they will pass allowance there, yet they will gain upon excuse. I find Mr. Le Zure to use you well, I mean his tongue of you, which shows you either honest, or wise: but this I speak merrily. For in good faith I do conceive hope, that you will so govern yourself, as we may take you as assuredly for a good subject and patriot, as you take yourself for a good christian; and so we may again enjoy your company, and you your conscience, if it may no otherwise be. For my part, assure yourself, as we say in the law, "mutatis mutandis," my love and good wishes to you are not diminished. And so I remain——

CII. TO MR. MATTHEW UPON SENDING HIS BOOK "DE SAPIENTIA VETERUM."†

Mr. Matthew,

I no very heartily thank you for your letter of the 24th of August from Salamanca; and in recompence thereof I send you a little work of mine, that hath begun to pass the world. They tell me my Latin is turned into silver, and become current: had you been here, you should have been my inquisitor before it came forth: but, I think, the greatest inquisitor in Spain will allow it. But one thing you must pardon me if I make no haste to believe, that the world should be grown to such an ecstasy, as to reject truth in philosophy, because the author dissenteth in religion; no more than they do by Aristotle or Averroes. My great work goeth forward; and after my manner, I alter ever when I add. So that nothing is finished till all be finished. This I have written in the midst of a term and parliament; thinking no time so possessed, but that I should talk of these matters with so good and dear a friend. And so with my wonted wishes I leave you to God's goodness.

From Gray's-Inn, Feb. 27, 1610.

CIII. TO THE KING, DESIRING TO SUCCEED IN THE ATTORNEY'S PLACE.‡

It may please your Majesty,

Your great and princely favours towards me in advancing me to place; and, that which is to me of no less comfort, your Majesty's benign and gracious acceptation, from time to time, of my poor services, much above the merit and value of them; hath almost brought me to an opinion that I may sooner, perchance, be wanting to myself in not asking, than find your Majesty's goodness wanting to me in any my reasonable and modest desires. And therefore perceiving how at this time preferments of law fly about mine ears, to some above me, and to some below me; I did conceive your Majesty may think it rather a kind of dulness, or want of faith, than modesty, if I should not come with my pitcher to Jacob's well, as others do. Wherein I shall propound to your Majesty that which tendeth not so much to the raising of my fortune, as to the settling of my mind: being sometimes assailed with this cogitation, that by reason of my slowness to see and apprehend sudden occasions, keeping in one plain course of painful service, I may, *in fine dierum*, be in danger to be neglected and forgotten: and if that should be, then were it much better for me, now while I stand in your Majesty's good opinion, though unworthy, and have some little reputation in the world, to give over the course I am in, and to make proof to do you some honour by my pen, either by writing some faithful narrative of your happy, though not untraduced, times; or by recompiling your laws, which, I perceive, your Majesty laboureth with; and hath in your head, as Jupiter had Pallas, or some other the like work; for without some endeavour to do you honour, I would not live; than to spend my wits and time in this laborious place wherein I now serve; if it shall be deprived of those outward ornaments, which it was wont to have, in respect of an assured succession to some place of more dignity and rest; which seemeth now to be a hope altogether casual, if not wholly intercepted. Wherefore, not to hold your Majesty long, my humble suit to your Majesty is that, than the which I cannot well go lower; which is, that I may obtain your royal promise to succeed, if I live, into the attorney's place, whensoever it shall be void; it being but the natural and immediate step and rise which the place I now hold hath ever, in sort, made claim to, and almost never failed of. In this suit I make no friends but to your Majesty, rely upon no other motive but your grace, nor any other assurance but your word; whereof I had good experience, when I came to the solicitor's place, that it was like to the two great lights, which in their motions are never retrograde. So with my best prayers for your Majesty's happiness, I rest—

CIV. TO THE KING, UPON THE ATTORNEY'S SICKNESS.§

It may please your most excellent Majesty,

I no understand by some of my good friends, to my

* This duke of Florence was named Ferdinand, of the house of Medici; whose memory Sir Henry Wotton celebrated in a letter printed in his Remains, and presented to king Charles I. Pisaecius, the bishop of Premista in Poland, begins his chronicle of the year 1609, with an account of his death; and sums up his character in these words: "Princeps animo excelso, et omnibus politicis artibus in tantum instructus, ut in multis seculis vix æqualem habuerit." *Stephens.*

† Rawley's Resuscitatio. ‡ Ibid. § Ibid.

great comfort, that your Majesty hath in mind your Majesty's royal promise, which to me is *anchora spei*, touching the attorney's place. I hope Mr. Attorney shall do well. I thank God I wish no man's death, nor much mine own life, more than to do your Majesty service. For I account my life the accident, and my duty the substance. But this I will be bold to say; if it please God that I ever serve your Majesty in the attorney's place, I have known an attorney Coke, and an attorney Hobart, both worthy men, and far above myself: but if I should not find a middle way between their two dispositions and carriages, I should not satisfy myself. But these things are far or near, as it shall please God. Meanwhile I most humbly pray your Majesty, to accept my sacrifice of thanksgiving for your gracious favour. God preserve your Majesty, I ever remain——

CV. *TO THE MOST HIGH AND EXCELLENT PRINCE HENRY, PRINCE OF WALES, DUKE OF CORNWALL, AND EARL OF CHESTER.†

IT MAY PLEASE YOUR HIGHNESS,

HAVING divided my life into the contemplative and active part, I am desirous to give his Majesty and your highness of the fruits of both, simple though they be.

To write just treatises, requireth leisure in the writer, and leisure in the reader, and therefore are not so fit, neither in regard of your highness's princely affairs, nor in regard of my continual service; which is the cause that hath made me choose to write certain brief notes, set down rather significantly than curiously, which I have called "Essays." The word is late, but the thing is ancient; for Seneca's epistles to Lucilius, if you mark them well, are but essays, that is, dispersed meditations, though conveyed in the form of epistles. These labours of mine, I know, cannot be worthy of your highness, for what can be worthy of you? But my hope is, they may be as grains of salt, that will rather give you an appetite, than offend you with satiety. And although they handle those things wherein both men's lives and their persons are most conversant; yet what I have attained I know not; but I have endeavoured to make them not vulgar, but of a nature, whereof a man shall find much in experience, and little in books; so as they are neither repetitions nor fancies. But, however, I shall most humbly desire your highness to accept them in gracious part, and to conceive, that if I cannot rest, but must show my dutiful and devoted affection to your highness in these things which proceed from myself, I shall be much more ready to do it in performance of any of your princely commandments. And so wishing your highness all princely felicity, I rest,

Your highness's most humble servant,

1612. FR. BACON.

* Stephens's Second Collection, p. 1.

† Sir Francis Bacon designed to have prefixed this epistle to his Essays, printed in the year 1612, but was prevented by the prince's death; yet it was so well liked by Mr Matthew, that he inserted part of it in his dedication to the duke of Tuscany, before his translation of those Essays printed in 1618.

CVI. TO THE EARL OF SALISBURY, LORD TREASURER, UPON A NEW-YEAR'S TIDE.‡

IT MAY PLEASE YOUR GOOD LORDSHIP,

I WOULD entreat the new year to answer for the old, in my humble thanks to your lordship; both for many your favours, and chiefly that upon the occasion of Mr. Attorney's infirmity I found your lordship even as I could wish. This doth increase a desire in me to express my thankful mind to your lordship; hoping, that though I find age and decays grow upon me, yet I may have a flash or two of spirit left to do you service: and I do protest before God, without compliment or any light vanity of mind, that if I knew in what course of life to do you best service, I would take it, and make my thoughts, which now fly to many pieces, be reduced to that centre. But all this is no more but that I am; which is not much; but yet the entire of him that is, &c.

‡ Rawley's Resuscitatio.

CVII. TO MY LORD MAYOR, UPON A PROCEEDING IN A PRIVATE CAUSE.§

MY VERY GOOD LORD,

I DID little expect, when I left your lordship last, that there would have been a proceeding against Mr. Barnard to his overthrow: wherein I must confess myself to be in a sort accessary; because he relying upon me for counsel, I advised that course which he followed. Wherein now I begin to question myself whether in preserving my respects unto your lordship, and the rest, I have not failed in the duty of my profession towards my client. For certainly, if the words had been heinous, and spoken in a malicious fashion, and in some public place, and well proved; and not a prattle in a tavern, caught hold of by one who, as I hear, is a detected sycophant, Standish, I mean; yet I know not what could have been done more, than to impose upon him a grievous fine, and to require the levying of the same; and to take away his means of life by his disfranchisement, and to commit him to a defamed prison during Christmas; in honour whereof, the prisoners in other courts do commonly of grace obtain some enlargement. This rigour of proceeding, to tell your lordship and the rest, as my good friends, my opinion plainly, tendeth not to strengthen authority, which is best supported by love and fear intermixed; but rather to make people discontented and servile; especially when such punishment is inflicted for words not by rule of law, but by a jurisdiction of discretion, which would evermore be moderately used. And I pray God, whereas, Mr. Recorder, when I was with you, did well and wisely put you in mind of the admonitions you often received from my lords, that you should bridle unruly tongues; that those kind of speeches and rumours, whereunto those admonitions do refer, which are

§ Ibid.

concerning the state and honour thereof, do not pass too licentiously in the city unpunished; while these words which concern your particular, are so straitly inquired into, and punished with such extremity. But these things your own wisdom, first or last, will best represent unto you. My writing unto you at this time is, to the end, that howsoever I do take it somewhat unkindly, that my meditation prevailed no more: yet that I might preserve that farther respect that I am willing to use unto such a state, in delivering my opinion unto you freely, before I would be of counsel, or move any thing that should cross your proceedings; which, notwithstanding, in case my client can receive no relief at your hands, I must and will do; continuing, nevertheless, in other things, my wonted good affections to yourselves and your occasions.

CVIII. TO SIR VINCENT SKINNER.*

SIR VINCENT SKINNER,†

I SEE that by your needless delays, this matter is grown to a new question; wherein for the matter itself, if it had been stayed at the beginning by my lord Treasurer and Mr. Chancellor, I should not so much have stood upon it. For the great and daily travels which I take in his Majesty's service, either are rewarded in themselves, in that they are but my duty, or else may deserve a much greater matter. Neither can I think amiss of any man, that in furtherance of the king's benefit moved the doubt, that knew not what warrant I had. But my wrong is, that you having had my lord Treasurer's and Mr. Chancellor's warrant for payment above a month since; you, I say, making your payments, belike upon such differences, as are better known to yourself, than agreeable to the respect of his Majesty's service, have delayed all this time, otherwise than I might have expected from our ancient acquaintance, or from that regard which one in your place may owe to one in mine. By occasion whereof there ensueth to me a greater inconvenience, that now my name in sort must be in question amongst you, as if I were a man likely to demand that which were unreasonable, or be denied that which is reasonable: and this must be, because you can pleasure men at pleasure. But this I leave with this: that it is the first matter wherein I had occasion to discern of your friendship, which I see to fall to this; that whereas Mr. Chancellor, the last time, in my man's hearing, very honourably said, that he would not discontent any man in my place; it seems you have no such caution. But my writing to you now is to know of you where now the stay is, without being any more beholden to you, to whom indeed no man ought to be beholden in those cases in a right cause. And so I bid you farewell.

FR. BACON.

CIX. ‡TO SIR HENRY SAVILLE.§

SIR,

COMING back from your invitation at Eton, where I had refreshed myself with company which I loved, I fell into a consideration of that part of policy, whereof philosophy speaketh too much, and laws too little; and that is, of education of youth. Whereupon fixing my mind a while, I found straightways, and noted even in the discourses of philosophers, which are so large in this argument, a strange silence concerning one principal part of that subject. For as touching the framing and seasoning of youth to moral virtues, as tolerance of labours, continency from pleasures, obedience, honour, and the like, they handle it; but touching the improvement, and helping of the intellectual powers, as of conceit, memory, and judgment, they say nothing: whether it were, that they thought it to be a matter wherein nature only prevailed; or that they intended it as referred to the several and proper arts which teach the use of reason and speech. But for the former of these two reasons, howsoever it pleaseth them to distinguish of habits and powers, the experience is manifest enough, that the motions and faculties of the wit and memory may be not only governed and guided, but also confirmed and enlarged by custom and exercise duly applied: as if a man exercise shooting, he shall not only shoot nearer the mark, but also draw a stronger bow. And as for the latter, of comprehending these precepts within the arts of logic and rhetoric, if it be rightly considered, their office is distinct altogether from this point; for it is no part of the doctrine of the use or handling of an instrument, to teach how to whet or grind the instrument to give it a sharp edge, or how to quench it, or otherwise whereby to give it a stronger temper. Wherefore finding this part of knowledge not broken, I have, but "tanquam aliud agens," entered into it, and salute you with it; dedicating it, after the ancient manner, first as to a dear friend, and then as to an apt person, forasmuch as you have both place to practise it, and judgment and leisure to look deeper into it than I have done. Herein you must call to mind "Αριστον μὲν ὕδωρ. Though the argument be not of great height and dignity, nevertheless it is of great and universal use: and yet I do not see why, to consider it rightly, that should not be a learning of height, which teacheth to raise the highest and worthiest part of the mind. But howsoever that be, if the world take any light and use

* Stephens's First Collection, p. 53.

† Officer of the receipts of the exchequer. *Rymer*, XVI. p. 497.

‡ Sir Henry Saville, so justly celebrated for his noble edition of St. Chrysostom and other learned works, was many years warden of Merton college in Oxford, in which university he founded a geometry and astronomy lecture, 25 May, 1620. See the instrument of foundation, *Rymer*, XVI. p. 217, and likewise provost of Eton. To this gentleman, as of all the most proper, Sir Francis Bacon sends this discourse touching "Helps for the intellectual Powers in Youth;" but being an imperfect essay to incite others, he places this useful subject among the deficients reckoned up in his "Advancement of Learning." *Stephens.*

§ Stephens's First Collection, p. 54.

by this writing, I will the gratulation be to the good friendship and acquaintance between us two: and so I commend you to God's divine protection.

A DISCOURSE TOUCHING THE HELPS FOR INTELLECTUAL POWERS.

I DID ever hold it for an insolent and unlucky saying, "Faber quisque fortunæ suæ;" except it be uttered only as a hortative or spur to correct sloth. For otherwise, if it be believed as it soundeth, and that a man entereth into a high imagination that he can compass and fathom all accidents; and ascribeth all successes to his drifts and reaches; and the contrary to his errors and sleepings: it is commonly seen that the evening fortune of that man is not so prosperous, as of him that without slackening of his industry attributeth much to felicity and providence above him. But if the sentence were turned to this, "Faber quisque ingenii sui," it were somewhat more true, and much more profitable; because it would teach men to bend themselves to reform those imperfections in themselves which now they seek but to cover, and to attain those virtues and good parts which now they seek but to have only in show and demonstration. Yet notwithstanding every man attempteth to be of the first trade, of carpenters, and few bind themselves to the second; whereas nevertheless the rising in fortune seldom amendeth the mind; but on the other side, the removing of the stonds and impediments of the mind doth often clear the passage and current to a man's fortune. But certain it is, whether it be believed or no, that as the most excellent of metals, gold, is of all others the most pliant and most enduring to be wrought; so of all living and breathing substances, the perfectest man is the most susceptible of help, improvement, impression, and alteration; and not only in his body, but in his mind and spirit; and there again not only in his appetite and affection, but in his powers of wit and reason.

For as to the body of man, we find many and strange experiences, how nature is over-wrought by custom, even in actions that seem of most difficulty and least possible. As first in voluntary motion, which though it be termed voluntary, yet the highest degrees of it are not voluntary; for it is in my power and will to run; but to run faster than according to my lightness or disposition of body, is not in my power nor will. We see the industry and practice of tumblers and funambulos, what effects of great wonder it bringeth the body of man unto. So for suffering of pain and dolour, which is thought so contrary to the nature of man, there is much example of penances in strict orders of superstition what they do endure, such as may well verify the report of the Spartan boys, which were wont to be scourged upon the altar so bitterly as sometimes they died of it, and yet were never heard to complain. And to pass to those faculties which are reckoned more involuntary, as long fasting and abstinence, and the contrary extreme, voracity; the leaving and forbearing the use of drink for altogether; the enduring vehement cold, and the like; there have not wanted, neither do want, divers examples of strange victories over the body in every of these. Nay, in respiration, the proof hath been of some who by continual use of diving and working under the water, have brought themselves to be able to hold their breath an incredible time: and others that have been able, without suffocation, to endure the stifling breath of an oven or furnace so heated as though it did not scald nor burn, yet it was many degrees too hot for any man not made to it to breathe or take in. And some impostors and counterfeits likewise have been able to wreathe and cast their bodies into strange forms and motions; yea, and others to bring themselves into trances and astonishments. All which examples do demonstrate how variously and to how high points and degrees the body of man may be as it were molded and wrought. And if any man conceive that it is some secret propriety of nature that hath been in those persons which have attained to those points, and that it is not open for every man to do the like, though he had been put to it; for which cause such things come but very rarely to pass: it is true no doubt but some persons are apter than others; but so as the more aptness causeth perfection, but the less aptness doth not disable: so that, for example, the more apt child, that is taken to be made a funambulo, will prove more excellent in his feats; but the less apt will be *gregarius funambulo* also. And there is small question, but that these abilities would have been more common, and others of like sort, not attempted, would likewise have been brought upon the stage, but for two reasons: the one, because of men's diffidence in prejudging them as impossibilities; for it holdeth in those things which the poet saith, "possunt, quia posse videntur;" for no man shall know how much may be done except he believe much may be done. The other reason is, because they be but practices base and inglorious, and of no great use, and therefore sequestered from reward of value, and on the other side painful; so as the recompence balanceth not with the travel and suffering. And as to the will of man, it is that which is most maniable and obedient; as that which admitteth most medicines to cure and alter it. The most sovereign of all is religion, which is able to change and transform it in the deepest and most inward inclinations and motions, and next to that is opinion and apprehension, whether it be infused by tradition and institution, or wrought in by disputation and persuasion; and the third is example, which transformeth the will of man into the similitude of that which is most observant and familiar towards it; and the fourth is, when one affection is healed and corrected by another, as when cowardice is remedied by shame and dishonour, or sluggishness and backwardness by indignation and emulation, and so of the like; and lastly, when all these means or any of them have new-framed or formed human will, then doth custom and habit corroborate and confirm all the rest. Therefore it is no marvel, though this faculty of the mind, of will and election, which inclineth affection and appetite, being but the inceptions and rudiments of will, may be so well governed and managed;

because it admitteth access to so divers remedies to be applied to it, and to work upon it: the effects whereof are so many and so known, as require no enumeration; but generally they do issue, as medicines do, into two kinds of cures, whereof the one is a just or true cure, and the other is called palliation: for either the labour and intention is to reform the affections really and truly, restraining them if they be too violent, and raising them if they be too soft and weak; or else it is to cover them, or, if occasion be, to pretend them and represent them: of the former sort whereof the examples are plentiful in the schools of philosophers, and in all other institutions of moral virtue: and of the other sort the examples are more plentiful in the courts of princes, and in all politic traffic; where it is ordinary to find, not only profound dissimulations, and suffocating the affections, that no note or mark appear of them outwardly; but also lively simulations and affectations, carrying the tokens of passions which are not, as *risus jussus* and *lacrymæ coactæ*, and the like.

OF HELPS OF THE INTELLECTUAL POWERS.

THE intellectual powers have fewer means to work upon them, than the will or body of man; but the one that prevaileth, that is, exercise, worketh more forcibly in them than in the rest.

* The ancient habit of the philosophers, "Si quis quærat in utramque partem de omni scibili."

The exercise of scholars making verses extempore, "Stans pede in uno."

The exercise of lawyers in memory narrative.

The exercise of sophists, and "Jo. ad oppositum," with manifest effect.

Artificial memory greatly holpen by exercise.

The exercise of buffoons to draw all things to conceits ridiculous.

The means that help the understanding and faculties thereof are,

(Not example, as in the will, by conversation; and here the conceit of imitation already digested, with the confutation "obiter si videbitur," of Tully's opinion, advising a man to take some one to imitate. Similitude of faces analysed.)

Arts, Logic, Rhetoric; The ancients, Aristotle, Plato, Theætetus, Gorgias "litigiosus vel sophista," Protagoras, Aristotle, "schola sua." Topics, Elenchs, Rhetorics, Organon, Cicero, Hermogenes. The Neoterics, Ramus, Agricola. "Nil sacri;" Lullius his Typocosmia, studying Cooper's Dictionary, Matthæus collection of proper words for metaphors, Agrippa "de vanitatibus," &c.

Que. If not here of imitation.

Collections preparative. Aristotle's similitude of a shoemaker's shop, full of shoes of all sorts: Demosthenes, "Exordia concionum." Tully's precept of theses of all sorts preparative.

The relying upon exercise, with the difference of using and tempering the instrument: and the similitude of prescribing against the laws of nature and of estate.

* These that follow are but indigested notes.

Five points.

1. That exercises are to be framed to the life; that is to say, to work ability in that kind whereof a man in the course of action shall have most use.

2. The indirect and oblique exercises; which do, *per partes* and *per consequentiam*, enable these faculties; which perhaps direct exercise at first would but distort; and these have chiefly place where the faculty is weak, not *per se*, but *per accidens*: as if want of memory grow through lightness of wit and want of staid attention; then the mathematics or the law helpeth; because they are things, wherein if the mind once roam, it cannot recover.

3. Of the advantages of exercise; as to dance with heavy shoes, to march with heavy armour and carriage; and the contrary advantage, in natures very dull and unapt, of working alacrity, by framing an exercise with some delight or affection.

> "Ut pueris olim dant crustula blandi
> Doctores, elementa velint ut discere prima."
>
> *Horat. Sat.* I. i. 25.

4. Of the cautions of exercise; as to beware lest by evil doing, as all beginners do weakly, a man grow not, and be inveterate, in an ill habit, and so take not the advantage of custom in perfection, but in confirming ill. Slubbering on the lute.

5. The marshalling and sequel of sciences and practices; logic and rhetoric should be used to be read after poesy, history, and philosophy; first, exercise, to do things well and clean; after, promptly and readily.

The exercises in the universities and schools are of memory and invention; either to speak by heart that which is set down *verbatim*, or to speak *extempore*; whereas there is little use in action of either or both; but most things which we utter are neither verbally premeditate, nor merely extemporal. Therefore exercise would be framed to take a little breathing, and to consider of heads; and then to fit and form the speech *extempore*. This would be done in two manners; both with writing and tables, and without: for in most actions it is permitted and passable to use the note, whereunto if a man be not accustomed, it will put him out.

There is no use of a narrative memory *in academiis*, namely, with circumstances of times, persons, and places, and with names; and it is one art to discourse, and another to relate and describe; and herein use and action is most conversant.

Also to sum up and contract, is a thing in action of very general use.

CX. SIR FRANCIS BACON TO MR. MATTHEW ABOUT HIS WRITINGS, AND THE DEATH OF A FRIEND.†

SIR,

THE reason of so much time taken before my answer to yours of the fourth of August, was chiefly by accompanying my letter with the paper which

† Sir Tobie Matthew's Collection of Letters, p. 23.

here I send you; and again, now lately, not to hold from you till the end of a letter, that which by grief may, for a time, efface all the former contents, the death of your good friend and mine A. B., to whom because I used to send my letters for conveyance to you, it made me so much the more unready in the despatch of them. In the mean time I think myself, howsoever it hath pleased God otherwise to bless me, a most unfortunate man, to be deprived of two, a great number in true friendship, of those friends, whom I accounted as no stage-friends, but private friends, and such, as with whom I might both freely and safely communicate, him by death, and you by absence. As for the memorial of the late deceased queen, I will not question whether you be to pass for a disinterested man or no; I freely confess myself am not, and so I leave it. As for my other writings, you make me very glad of your approbation; the rather, because you add a concurrence in opinion with others; for else I might have conceived, that affection would, perhaps, have prevailed with you, beyond that, which if your judgment had been neat and free, you could have esteemed. And as for your caution, touching the dignity of ecclesiastical persons, I shall not have cause to meet with them any otherwise, than in that some schoolmen have, with excess, advanced the authority of Aristotle. Other occasion I shall have none. But now I have sent you that only part of the whole writing, which may perhaps have a little harshness and provocation in it: although I may almost secure myself, that if the preface passed so well, this will not irritate more, being indeed, to the preface, but as *palma ad pugnum*. Your own love expressed to me, I heartily embrace; and hope that there will never be occasion of other than entireness between us; which nothing but *majores charitates* shall ever be able to break off.

INTERROGATORIES WHEREUPON PEACHAM IS TO BE EXAMINED.

QUESTIONS IN GENERAL.*

1. WHO procured you, moved you, or advised you, to put in writing these traitorous slanders which you have set down against his Majesty's person and government, or any of them?

2. Who gave you any advertisement or intelligence touching those particulars which are contained in your writings; as touching the sale of the crown lands, the deceit of the king's officers, the greatness of the king's gifts, his keeping divided courts, and the rest; and who hath conferred with you, or discoursed with you, concerning these points?

3. Whom have you made privy and acquainted with the said writings, or any part of them? and who hath been your helpers or confederates therein?

4. What use mean you to make of the said writings? was it by preaching them in sermon, or by publishing them in treatise? if in sermon, at what time, and in what place meant you to have preached them? if by treatise, to whom did you intend to dedicate, or exhibit, or deliver such treatise?

5. What was the reason, and to what end did you first set down in scattered papers, and after knit up, in form of a treatise or sermon, such a mass of treasonable slanders against the king, his posterity, and the whole state?

6. What moved you to write, the king might be stricken with death on the sudden, or within eight days, as Ananias or Nabal? do you know of any conspiracy or danger to his person, or have you heard of any such attempt?

7. You have confessed that these things were applied to the king; and that, after the example of preachers and chroniclers, kings' infirmities are to be laid open; this showeth plainly your use must be to publish them: show to whom and what manner.

8. What was the true time when you wrote the said writings, or any part of them? and what was the last time you looked upon them, or perused them, before they were found or taken?

9. What moved you to make doubt whether the people will rise against the king for taxes and oppressions? Do you know, or have you heard, of any likelihood or purpose of any tumults or commotion?

10. What moved you to write, That getting of the crown-land again would cost blood, and bring men to say, This is the heir, let us kill him? Do you know, or have you heard of any conspiracy or danger to the prince, for doubt of calling back the crown-land?

11. What moved you to prove, that all the king's officers mought be put to the sword? Do you know, or have you heard of any petition is intended to be made against the king's council and officers, or any rising of people against them?

12. What moved you to say in your writing, That our king, before his coming to the kingdom, promised mercy and judgment, but we find neither? What promise do you mean of, and wherein hath the king broke the same promise?

There follows in the hand-writing of Secretary Winwood,

Upon those interrogatories, Peacham this day was examined before torture, in torture, between torture, and after torture; notwithstanding nothing could be drawn from him, he still persisting in his obstinate and insensible denials, and former answers.

January the 19th, 1614.

RALPHE WINWOOD,	GERVASE HELWYSSE,
JUL. CÆSAR,	RAN. CREWE,
FR. BACON,	HENRY YELVERTON,
H. MOUNTAGUE,	FR. COTTINGTON.

* Sir David Dalrymple's Memorials and Letters relating to the history of Great Britain in the reign of James the First, p. 26. Edit. Glasgow. 1762.

CXI. TO THE KING, CONCERNING PEACHAM'S CAUSE.†

IT MAY PLEASE YOUR EXCELLENT MAJESTY,

IT grieveth me exceedingly that your Majesty should be so much troubled with this matter of

† Rawley's Resuscitatio.

Peacham, whose raging devil seemeth to be torned into a dumb devil. But although we are driven to make oor way through questions, which I wish were otherwise, yet, I hope well, the end will be good. But then every man must put to his helping hand; for else I may say to your Majesty, in this and the like cases, as St. Paul said to the centurion, when some of the mariners had an eye to the cock-boat, "Except these stay in the ship ye cannot be safe." I find in my lords great and worthy care of the business: And for my part, I hold my opinion and am strengthened in it by some records that I have found. God preserve your Majesty.

Your Majesty's most humble and devoted subject and servaot,

FR. BACON.

Jan. 21, 1614.

CXII. TO THE KING. TOUCHING PEACHAM'S CAUSE.*

IT MAY PLEASE YOUR EXCELLENT MAJESTY,

THIS day in the afternoon was read your Majesty's letters of direction tooching Peacham;† which because it concerneth properly the doty of my place, I thooght it fit for me to give your Majesty both a speedy and a private account thereof; that your Majesty, koowing things clearly how they pass, may have the true fruit of your own wisdom aod clear-seeing judgment in governing the business.

First, for the regularity which your Majesty, as a master in business of estate, doth prudently prescribe in examining and taking examinations, I subscribe to it; only I will say for myself, that I was not at this time the prineipal examiner.

For the eourse your Majesty directeth and commandeth for the feeling of the judges of the king's bench, their several opinions, by distributing ourselves and enjoining secresy; we did first find an encounter in the opinion of my lord Coke, who seemed to affirm, that sueh partieular and, as he called it, auricular taking of opinions was not according to the eustom of this realm; and seemed to divine, that his brethren would never do it. But when I replied, that it was our duty to pursue your Majesty's directions, and it were not amiss for his lordship to leave his brethren to their own answers; it was so concluded: and his lordship did desire that I might confer with himself; and Mr. Serjeant Montague was named to speak with Justiee Crook; Mr. Serjeant Crew with Justice Houghton; and Mr. Solicitor with Justiee Dodderidge.‡ This done, I took my fellows aside, and advised that they should presently speak with the three jodges, before I could speak with my lord Coke, for doubt of infusion; and that they should not in any case make any doubt to the judges, as if they mistrusted they would not deliver any opinion apart, but speak resolutely to them, and only make their eoming to be, to know what time they would appoint to be attended with the papers. This sorted not amiss; for Mr. Solicitor eame to me this evening, and related to me that he had found judge Dodderidge very ready to give opinion in secret; and fell upon the same reason whieh opon yoor Majesty's first letter I had used to my lord Coke at the council-table: which was, that every judge was bound expressly hy his oath, to give your Majesty eounsel when he was ealled; and whether he should do it jointly or severally, that rested in your Majesty's good pleasure, as you would require it. And though the ordinary eourse was to assemble them, yet there might intervene cases, wherein the other eourse was more eoovenient. The like answer made justice Crook.§ Justice Hooghton, who is a soft man.‖ seemed desiroos first

* Rawley's Resuscitatio.

† Peacham was accused of having inserted several treasonable passages in a sermon; but in a sermon never preached, nor intended to be made public: it had been taken out of his study. The king would have the judges give their opinion of this affair privately and apart; which my lord Coke refused to do, as a thing of dangerous tendency. Peacham was found guilty of high treason; as was Algernon Sidney for the like crime, in Charles the second's time.

‡ Sir John Dodderidge was born in Devonshire, and successively admitted in Exeter college, Oxford, and the Middle Temple, London: where having acquired the reputation of being a very great common and civil lawyer, as well as a general scholar, he was made serjeant at law 1 Jacobi, then the king's solicitor, and after that the king's serjeant, till he was advanced to be one of the judges of the king's bench: where he sat many years. He died 13 Sept. 1628, in the 73rd year of his age, and was succeeded by Sir George Crook, who tells us, Sir John Dodderidge was a man of great knowledge, as well in the common law, as in other sciences, and divinity. *Stephens.*

§ Sir John Crook, eldest son of John Crook, of Chilton in Buckinghamshire, inherited his father's virtues and fortunes; and was very famous for his wisdom, eloquence, and knowledge in our laws; who being speaker in the house of commons in the last parliament of queen Elizabeth, had from her this commendation at the end thereof; that he had proceeded therein with such wisdom and discretion, that none before him had deserved better. After he had been recorder of London, and serjeant at law, he was 5 Jacobi made one of the justices of the king's bench; where he continued till his death, 23 Jan. 1619. He was brother to Sir George Crook, so well known to the professors of the common law by his three large volumes of Reports: which Sir George was one of the judges of the court of common pleas, in the latter end of the reign of king James, and in a few years after removed into the king's bench; where he sat till the year 1641, when by reason of his great age and infirmities, the king at his own request gave him a gracious discharge, as appears in the preface to one of his books, where a due character is given of his virtues by his son-in-law Sir Harbottle Grimston, late master of the rolls. But certainly nothing can raise in us a more lively idea of his merit, than part of a letter written to the duke of Buckingham, by the bishop of Lincoln, lord keeper of the great seal, which I copied from his own hand.

"Westminster coll. Feb. 11, 1624.

"May it please your Grace,

"I will not trouble your Grace with any long congratulation for the honour your Grace hath gained, in the preferring of this most worthy man Sir George Crook to a judge his place. I know you must meet with the applause of this act from every man that cometh from hence. In good faith I never observed in all my small experience any accident in this kind, so generally and universally accompanied with the acclamation of all kind of people.

"I am importuned, by the rest of the judges of the common pleas, to return their most humble and hearty thanks to the king's Majesty for his choice, and to assure his Majesty, that though his Majesty hath been extraordinary fortunate, above all his predecessors, in the continual election of most worthy judges: yet hath his Majesty never placed upon any bench a man of more integrity and sufficiency than this gentleman: for which act they do with tears in their eyes praise and bless him." *Stephens.*

‖ This expression is to be understood in a favourable sense, since Sir George Crook gives a more than ordinary character of him. *Mem.* That in Hilary term, 21 Jac. Sir Robert Houghton died at Serjeant's-Inn in Chancery-lane, being a most reverend, prudent, learned, and temperate judge, and inferior to none of his time. *Stephens.*

to confer; alleging that the other three judges had all served the crown before they were judges, but that he had not been much acquainted with business of this nature.

We purpose therefore forthwith, they shall be made acquainted with the papers; and if that could be done as suddenly as this was, I should make small doubt of their opinions: and howsoever, I hope, force of law and precedent will bind them to the truth: neither am I wholly out of hope, that my lord Coke himself, when I have in some dark manner put him in doubt that he shall be left alone, will not continue singular.

For Owen, I know not the reason why there should have been no mention made thereof in the last advertisement: for I must say for myself, that I have lost no moment of time in it, as my lord of Canterbury can bear me witness. For having received from my lord an additional of great importance; which was, that Owen of his own accord after examination should compare the case of your Majesty, if you were excommunicate, to the case of a prisoner condemned at the bar; which additional was subscribed by one witness; but yet I perceived it was spoken aloud, and in the hearing of others; I presently sent down a copy thereof, which is now come up, attested with the hands of three more, lest there should have been any scruple of *singularis testis*; so as for this case I may say, *omnia parata*; and we expect but a direction from your Majesty for the acquainting the judges severally; or the four judges of the king's bench, as your Majesty shall think good.

I forget not, nor forslow not, your Majesty's commandment touching recusants; of which, when it is ripe, I will give your Majesty a true account, and what is possible to be done, and where the impediment is. Mr. Secretary bringeth *bonam voluntatem*, but he is not versed in these things: and sometimes urgeth the conclusion without the premises, and by haste hindereth. It is my lord treasurer and the exchequer must help it, if it be holpen. I have heard more ways than one, of an offer of 20,000*l.* *per annum*, for farming the penalties of recusants, not including any offence capital or of *premunire*: wherein I will presume to say, that my poor endeavours, since I was by your great and sole grace your attorney, have been no small spurs to make them feel your laws, and seek this redemption; wherein I must also say, my lord Coke hath done his part. And I do assure your Majesty, I know it somewhat inwardly and groundedly, that by the courses we have taken they conform daily and in great numbers; and I would to God it were as well a conversion as a conformity: but if it should die by dispensation or dissimulation, then I fear that whereas your Majesty hath now so many ill subjects poor and detected, you shall then have them rich and dissembled. And therefore I hold this offer very considerable of so great an increase of revenue: if it can pass the fiery trial of religion and honour, which I wish all projects may pass.

Thus, inasmuch as I have made to your Majesty somewhat a naked and particular account of business, I hope your Majesty will use it accordingly. God preserve your Majesty.

Your Majesty's most humble and devoted subject and servant,

FR. BACON.

Jan. 27, 1614.

CXIII. TO THE KING, REPORTING THE STATE OF LORD CHANCELLOR ELLESMERE'S HEALTH.*

It may please your excellent Majesty,

Because I know your Majesty would be glad to hear how it is with my lord chancellor, and that it pleased him out of his ancient and great love to me, which many times in sickness appeareth most, to admit me to a great deal of speech with him this afternoon, which during these three days he had scarcely done to any, I thought it might be pleasing to your Majesty to certify you how I found him. I found him in bed, but his spirits fresh and good, speaking stoutly, and without being spent or weary; and both willing and beginning of himself to speak, but wholly of your Majesty's business; wherein I cannot forget to relate this particular; that he wished that his sentencing of O. S.† at the day appointed, might be his last work, to conclude his services, and express his affection towards your Majesty. I told him, I knew your Majesty would be very desirous of his presence that day, so it might be without prejudice; but otherwise your Majesty esteemed a servant more than a service, especially such a servant. Not to trouble your Majesty, though good spirits in sickness be uncertain kalendars, yet I have very good comfort of him, and I hope by that day, &c.

January 29, 1614.

CXIV. TO THE KING, TOUCHING PEACHAM'S BUSINESS, &c.‡

It may please your excellent Majesty,

I received this morning, by Mr. Murray, a message from your Majesty, of some warrant and confidence that I should advertise your Majesty of your business, wherein I had part: wherein I am first humbly to thank your Majesty for your good acceptation of my endeavours and service, which I am not able to furnish with any other quality, save faith and diligence.

For Peacham's case, I have, since my last letter, been with my lord Coke twice; once before Mr. Secretary's going down to your Majesty, and once since, which was yesterday: at the former of which times I delivered him Peacham's papers; and at this latter the precedents, which I had with care gathered and selected: for these degrees and order the business required.

* Rawley's Resuscitatio.

† Mr. Oliver St. John.

‡ Rawley's Resuscitatio.

At the former I told him that he knew my errand, which stood upon two points; the one to inform him of the particular ease of Peacham's treasons, for I never give it other word to him, the other, to receive his opinion to myself, and in secret, according to my commission from your Majesty.

At the former time he fell upon the same allegation which he had begun at the council-table; that judges were not to give opinion by fractions, but entirely according to the vote whereupon they should settle upon conference: and that this auricular taking of opinions, single and apart, was new and dangerous; and other words more vehement than I repeat.

I replied in civil and plain terms, that I wished his lordship, in my love to him, to think better of it; for that this, that his lordship was pleased to put into great words, seemed to me and my fellows, when we spake of it amongst ourselves, a reasonable and familiar matter, for a king to consult with his judges, either assembled or selected, or one by one. And then to give him a little outlet to save his first opinion, wherewith he is most commonly in love, I added, that judges sometimes might make a suit to be spared for their opinion, till they had spoken with their brethren; but if the king, upon his own princely judgment, for reason of estate, should think it fit to have it otherwise, and should so demand it, there was no declining: nay, that it touched upon a violation of their oath, which was to counsel the king, without distinction whether it were jointly or severally. Thereupon, I put him the case of the privy council, as if your Majesty should be pleased to command any of them to deliver their opinion apart and in private; whether it were a good answer to deny it, otherwise than if it were propounded at the table. To this he said, that the cases were not alike, because this concerned life. To which I replied, that questions of estate might concern thousands of lives, and many things more precious than the life of a particular; as war, and peace, and the like.

To conclude, his lordship "tanquam exitum quærens," desired me for the time to leave with him the papers, without pressing him to consent to deliver a private opinion till he had perused them. I said I would; and the more willingly, because I thought his lordship, upon due consideration of the papers, would find the case to be so clear a case of treason, as he would make no difficulty to deliver his opinion in private; and so I was persuaded of the rest of the judges of the king's bench, who likewise, as I partly understood, made no scruple to deliver their own opinion in private; whereunto he said, which I noted well, that his brethren were wise men, and that they might make a show as if they would give an opinion, as was required; but the end would be, that it would come to this: they would say, they doubted of it, and so pray advice with the rest. But to this I answered, that I was sorry to hear him say so much, lest, if it came so to pass, some that loved him not might make a construction, that that which he had foretold, he had wrought. Thus your Majesty sees, that, as Solomon saith, "Gressus nolentis tanquam in scpi spinarum," it catcheth upon every thing.

The latter meeting is yet of more importance; for then, coming armed with divers precedents, I thought to set in with the best strength I could, and said, that before I descended to the record, I would break the case to him thus: That it was true we were to proceed upon the ancient statute of king Edward the third, because other temporary statutes were gone; and therefore it must be said in the indictment, "Imaginatus est et compassavit mortem et finalem destructionem domini regis:" then must the particular treasons follow in this manner, namely, "Et quod ad perimplendum nefandum propositum suum, composuit et conscripsit quendam detestabilem et venenosum libellum, sive scriptum, in quo, inter alia proditoria, continetur, etc." And then the principal passages of treason, taken forth of the papers, are to be entered *in hæc verba;* and with a conclusion in the end, "Ad intentionem quod ligeus populus et veri subditi domini regis cordialem suum amorem a domino rega retraherent, et ipsum dominum regem relinquerent, et guerram et insurrectionem contra eum levarent et facerent, etc." I have in this form followed the ancient style of the indictments for brevity sake, though when we come to the business itself, we shall enlarge it according to the use of the later times. This I represented to him, being a thing he is well acquainted with, that he might perceive the platform of that was intended, without any mistaking or obscurity. But then I fell to the matter itself, to lock him in as much as I could, namely,

That there be four means or manners, whereby the death of the king is compassed and imagined.

The first by some particular fact or plot.

The second, by disabling his title; as by affirming, that he is not lawful king; or that another ought to be king; or that he is an usurper, or a bastard, or the like.

The third, by subjecting his title to the pope; and thereby making him of an absolute king a conditional king.

The fourth, by disabling his regiment, and making him appear to be incapable or indign to reign.

These things I relate to your Majesty in sum, as is fit: which, when I opened to my lord, I did insist a little more upon, with more efficacy and edge, and authority of law and record than I can now express.

Then I placed Peacham's treason within the last division, agreeable to divers precedents, whereof I had the records ready; and concluded, that your Majesty's safety and life and authority was thus by law inclosed and quartered; and that it was in vain to fortify on three of the sides, and so leave you open on the fourth.

It is true, he heard me in a grave fashion more than accustomed, and took a pen and took notes of my divisions; and when he read the precedents and records, would say, This you mean, falleth within your first, or your second, division. In the end I expressly demanded his opinion, as that whereto both he and I were enjoined. But he desired me

to leave the precedents with him, that he might advise upon them. I told him, the rest of my fellows would despatch their part, and I should be behind with mine; which I persuaded myself your Majesty would impute rather to his backwardness than my negligence. He said, as soon as I should understand that the rest were ready, he would not be long after with his opinion.

For Mr. St. John, your Majesty knoweth, the day draweth on; and my lord chancellor's recovery, the season, and his age, promising not to be too hasty. I spake with him on Sunday, at what time I found him in bed, but his spirits strong, and not spent or wearied, and spake wholly of your business, leading me from one matter to another; and wished and seemed to hope, that he might attend the day for O. S. and it were, as he said, to be his last work, to conclude his services, and express his affection towards your Majesty. I presumed to say to him, that I knew your Majesty would be exceeding desirous of his being present that day, so as that it might be without prejudice to his continuance; but that otherwise your Majesty esteemed a servant more than a service, especially such a servant. Surely in mine opinion your Majesty were better put off the day than want his presence, considering the cause of the putting off is so notorious; and then the capital and the criminal may come together the next term.

I have not been unprofitable in helping to discover and examine, within these few days, a late patent, by surreption obtained from your Majesty, of the greatest forest in England, worth 30,000*l.* under colour of a defective title, for a matter of 400*l.* The person must be named, because the patent must be questioned. It is a great person, my lord of Shrewsbury; or rather, as I think, a greater than he, which is my lady of Shrewsbury.*

And accordingly hath been the practice both of the wisest and stoutest princes to hold for matter pregnant of peril, to have any near them in blood to fly into foreign parts. Wherein I will not wander; but take the example of king Henry the seventh, a prince not unfit to be paralleled with his Majesty; I mean not the particular of Perkin Warbeck, for he was but an idol or a disguise; but the example I mean, is that of the earl of Suffolk, whom the king extorted from Philip of Austria. The story is memorable, that Philip, after the death of Isabella, coming to take possession of his kingdom of Castile, which was but matrimonial to his father-in-law Ferdinando of Aragon, was cast by weather upon the coast of Weymouth, where the Italian story saith, king Henry used him in all things else as a prince, but in one thing as a prisoner; for he forced upon him a promise to restore the earl of Suffolk that was fled into Flanders: and yet this I note was in the 21st year of his reign, when the king had a goodly prince at mau's estate, besides his daughters, nay, and the whole line of Clarence nearer in title; for that earl of Suffolk was descended of a sister of Edward the fourth: so far off did that king take his aim. To this action of so deep consequence, it appeareth, you, my lady of Shrewsbury, were privy, not upon foreign suspicions or strained inferences, but upon vehement presumptions, now clear and particular testimony, as hath been opened to you; so as the king had not only reason to examine you upon it, but to have proceeded with you upon it as for a great contempt; which if it be reserved for the present, your ladyship is to understand it aright, that it is not defect of proof, but abundance of grace, that is the cause of this proceeding; and your ladyship shall do well to see into what danger you have brought yourself. All offences consist of the fact which is open, and the intent which is secret: this fact of conspiring in the flight of this lady may bear a hard and gentler construction; if upon overmuch affection to your kinswoman, gentler; if upon practice or other end, harder: you must take heed how you enter into such actions; whereof if the hidden part be drawn into that which is open, it may be your overthrow; which I speak not by way of charge, but by way of caution.

For that which you are properly charged with, you must know that all subjects, without distinction of degrees, owe to the king tribute and service, not only of their deed and hand, but of their knowledge and discovery.

If there be any thing that imports the king's service, they ought themselves undemanded to impart it; much more if they be called and examined; whether it be of their own fact or of another's, they ought to make direct answer: neither was there ever any subject brought in causes of estate to trial judicial, but first he passed examination; for examination is the entrance of justice in criminal causes; it is one of the eyes of the king's politic body; there are but two, information and examination; it may not be endured that one of the lights be put out by your example.

Your excuses are not worthy your own judgment: rash vows of lawful things are to be kept, but unlawful vows not; your own divines will tell you so. For your examples, they are some erroneous traditions. My lord of Pembroke spake somewhat that he was unlettered, and it was but when he was examined by one private counsellor, to whom he took exception; that of my lord Lumley is a fiction; the pre-eminences of nobility I would hold with to the last grain; but every day's experience is to the contrary: nay, you may learn

* That she was a woman of intrigue, and, as Camden says in his Annals of King James, "rebus turbidis nata," will appear from her conduct relating to the king's and her kinswoman the lady Arabella: for having been the great instrument of her marriage with Sir William Seymour, afterwards earl and marquis of Hertford, and of procuring her escape from the Tower; she was convened before the privy council, for refusing to give any answer in a matter which so nearly concerned the state: she was fined in the star-chamber, and the charge which was then given against her, printed in the Cabala, p. 369, was, I doubt not, says Mr. Stephens, made by Sir Francis Bacon. But as if this was not a sufficient warning, she afterwards reported that the lady Arabella left a child by her husband; for which and her repeated obstinacy she incurred a greater censure in the same court. That charge, whether Sir Francis Bacon's or not, is as follows:

Your lordships do observe the nature of this charge: my lady of Shrewsbury, a lady wise, and that ought to know what duty requireth, is charged to have refused, and to have persisted in refusal to answer, and to be examined in a high cause of state: being examined by the council-table, which is a representative body of the king. The nature of the cause, upon which she was examined, is an essential point, which doth aggravate and increase this contempt and presumption; and therefore of necessity with that we must begin.

How graciously and pareut-like his Majesty used the lady Arabella before she gave him cause of indignation, the world knoweth.

My lady notwithstanding, extremely ill-advised, transacted the most weighty and binding part and action of her life, which is her marriage, without acquainting his Majesty; which had been a neglect even to a mean parent: but being to our sovereign, and she standing so near to his Majesty as she doth, and then choosing such a condition as it pleased her to choose, all parties laid together, how dangerous it was, my lady might have read it in the fortune of that house wherewith she is matched; for it was not unlike the case of Mr. Seymour's grandmother.

The king nevertheless so remembered he was a king, as he forgot not he was a kinsman, and placed her only "sub libera custodia."

But now did my lady accumulate and heap up this offence with a far greater than the former, by seeking to withdraw herself out of the king's power into foreign parts.

That this flight or escape into foreign parts might have been seed of trouble to this state, is a matter whereof the conceit of a vulgar person is not uncapable.

For although my lady should have put on a mind to continue her loyalty, as nature and duty did bind her; yet when she was in another sphere, she must have moved in the motion of that orb, and not of the planet itself: and God forbid the king's felicity should be so little, as he should not have envy and enviers enough in foreign parts.

It is true, if any foreigner had wrought upon this occasion, I do not doubt but the intent would have been, as the prophet saith, "they have conceived mischief, and brought forth a vain thing." But yet your lordships know that it is wisdom in princes, and it is a watch they owe to themselves and to their people, to stop the beginnings of evils, and not to despise them. Seneca saith well, "Non jam amplius levia sunt pericula, si levia videantur;" dangers cease to be light, because by despising they grow and gather strength.

But I humbly pray your Majesty to know this first from my lord treasurer, who methinks groweth even studious in your business. God preserve your Majesty.

Your Majesty's most humble and devoted subject and servant,

FR. BACON.

Jan. 31, 1614.

The rather, in regard to Mr. Murray's absence, I humbly pray your Majesty to have a little regard to this letter.

CXV. TO THE KING, TOUCHING MY LORD CHANCELLOR'S AMENDMENT, &c.*

IT MAY PLEASE YOUR EXCELLENT MAJESTY,

MY lord chancellor sent for me to speak with me this morning, about eight of the clock. I perceive he hath now that *signum sanitatis*, as to feel better his former weakness: for it is true, I did a little mistrust that it was but a boutade of desire and good spirit, when he promised himself strength for Friday, though I was won and carried with it. But now I find him well inclined to use, should I say, your liberty, or rather your interdict, signified by Mr. Secretary from your Majesty. His lordship showed me also your own letter, whereof he had told me before, but had not showed it me. What shall I say? I do much admire your goodness for writing such a letter at such a time.

He had sent also to my lord treasurer, to desire him to come to him about that time. His lordship came; and, not to trouble your Majesty with circumstances, both their lordships concluded, myself present and concurring, That it could be no prejudice to your Majesty's service to put off the day for Mr. St. John † till the next term: the rather, because there are seven of your privy council, which are at least *numerus* and part of the court, which are by infirmity like to be absent; that is, my lord chancellor, my lord admiral, my lord of Shrewsbury, my lord of Exeter, my lord Zouch, my lord Stanhope, and Mr. Chancellor of the duchy; wherefore they agreed to hold a council to-morrow in the afternoon for that purpose.

It is true, that I was always of opinion that it was no time lost; and I do think so the rather, because I could be content, that the matter of Peacham were first settled and put to a point. For there be, perchance, that would make the example upon Mr. St. John to stand for all. For Peacham, I expect some account from my fellows this day; if it should fall out otherwise, then I hope it may not be left so. Your Majesty, in your last letter, very wisely put in a disjunctive, that the judges should deliver an opinion privately, either to my lord chancellor, or to ourselves distributed: his sickness made the latter way to be taken; but the other may be reserved with some accommodating, when we see the success of the former.

I am appointed this day to attend my lord treasurer for a proposition of raising profit and revenue by enfranchising copy-holders. I am right glad to see the patrimonial part of your revenue well looked into, as well as the fiscal: and I hope it will so be in other parts as well as this. God preserve your Majesty.

Your Majesty's most humble, and devoted subject and servant,

FR. BACON.

Feb. 7, 1614.

duty of lady Arabella herself, a lady of the blood, of a higher rank than yourself, who declining, and yet that but by request neither, to declare of your fact, yieldeth ingenuously to be examined of her own. I do not doubt but by this time you see both your own error, and the king's grace in proceeding with you in this manner.

Note. See the proclamation for apprehending the lady Arabella, and William Seymour, second son of the lord Beauchamp, dated June 4, 1611, who had made their escape the day before. *Rymer*, XVI. p. 710. *Stephens.*

* Rawley's Resuscitatio.

† In 1614, a benevolence was set on foot. Mr. Oliver St. John gave his opinion publicly, that it was against law, reason, and religion; for which he was condemned in a fine of five thousand pounds, and to be imprisoned during the king's pleasure.

‡ Rawley's Resuscitatio.

CXVI. TO THE KING, CONCERNING OWEN'S CAUSE, &c.‡

IT MAY PLEASE YOUR EXCELLENT MAJESTY,

MYSELF, with the rest of your counsel learned, conferred with my lord Coke, and the rest of the judges of the king's bench only, being met at my lord's chamber, concerning the business of Owen. For although it be true, that your Majesty in your letter did mention that the same course might be held in the taking of opinions apart in this, which was prescribed and used in Peacham's cause; yet both my lords of the council, and we amongst ourselves, holding it, in a case so clear, not needful; but rather that it would import a diffidence in us, and deprive us of the means to debate it with the judges, if cause were, more strongly, which is somewhat, we thought best rather to use this form.

The judges desired us to leave the examinations and papers with them for some little time, to consider, which is a thing they use, but I conceive, there will be no manner of question made of it. My lord chief justice, to show forwardness, as I interpret it, showed us passages of Suarez and others, thereby to prove, that though your Majesty stood not excommunicate by particular sentence, yet by the general bulls of *Cœna Domini*, and others, you were upon the matter excommunicate; and therefore, that the treason was as *de præsenti*. But I (that foresee that if that course should be held, when it cometh to a public day, to disseminate to the vulgar an opinion, that your Majesty's case is all one, as if you were *de facto* particularly and expressly excommunicate, it would but increase the danger of your person with those that are desperate papists, and that it is needless) commended my lord's diligence, but withal put it by; and fell upon the other course,

which is the true way, that is, that whoever shall affirm, *in diem*, or *sub conditione*, that your Majesty may be destroyed, is a traitor *de præsenti*; for that he maketh you but tenant for life, at the will of another. And I put the duke of Buckingham's case, who said, that if the king caused him to be arrested of treason, he would stab him; and the case of the impostress Elizabeth Barton, that said, that if king Henry the eighth took not his wife again, Catherine dowager, he should be no longer king; and the like.

It may be these particulars are not worth the relating; but because I find nothing in the world so important to your service, as to have you thoroughly informed, the ability of your direction considered, it maketh me thus to do; most humbly praying your Majesty to admonish me, if I be over troublesome.

For Peacham, the rest of my fellows are ready to make their report to your Majesty at such time, and in such manner, as your Majesty shall require it. Myself yesterday took my lord Coke aside, after the rest were gone, and told him all the rest were ready, and I was now to require his lordship's opinion, according to my commission. He said, I should have it; and repeated that twice or thrice, as thinking he had gone too far in that kind of negative, to deliver any opinion apart, before; and said, he would tell it me within a very short time, though he were not that instant ready. I have tossed this business *in omnes partes*, whereof I will give your Majesty knowledge when time serveth. God preserve your Majesty.

Your Majesty's most humble and devoted subject and servant,

FR. BACON.

Feb. 11, 1614.

CXVII. TO THE KING, ABOUT A CERTIFICATE OF LORD CHIEF JUSTICE COKE.*

IT MAY PLEASE YOUR EXCELLENT MAJESTY,

I SEND your Majesty enclosed my lord Coke's answers; I will not call them rescripts, much less oracles. They are of his own hand, and offered to me as they are in writing; though I am glad of it for mine own discharge. I thought it my duty, as soon as I received them, instantly to send them to your Majesty; and forbear, for the present, to speak farther of them. I, for my part, though this Muscovia weather be a little too hard for my constitution, was ready to have waited upon your Majesty this day, all respects set aside: but my lord treasurer, in respect of the season and much other business, was willing to save me. I will only conclude touching these papers with a text, divided I cannot say, "Oportet isthæc fieri;" but I may say, "Finis autem nondum." God preserve your Majesty.

Your Majesty's most humble and devoted subject and servant,

FR. BACON.

14 Feb. 1614.

* Rawley's Resuscitatio.

CXVIII. SIR FRANCIS BACON TO KING JAMES.†

IT MAY PLEASE YOUR EXCELLENT MAJESTY,

I PERCEIVE by the bishop of Bath and Wells, that although it seemeth he hath dealt in an effectual manner with Peacham, yet he prevaileth little hitherto; for he hath gotten of him no new names, neither doth Peacham alter in his tale touching Sir John Sydenham.

Peacham standeth off in two material points *de novo*.

The one, he will not yet discover into whose hands he did put his papers touching the consistory villanies. They were not found with the other bundles upon the search; neither did he ever say that he had burned or defaced them. Therefore it is like they are in some person's hands; and it is like again, that that person that he hath trusted with those papers, he likewise trusted with these others of the treasons, I mean with the sight of them.

The other, that he taketh time to answer, when he is asked, whether he heard not from Mr. Paulet some such words, as he saith he heard from Sir John Sydenham, or in some lighter manner.

I hold it fit, that myself, and my fellows, go to the Tower, and so I purpose to examine him upon these points, and some others; at the least, that the world may take notice that the business is followed as heretofore, and that the stay of the trial is upon farther discovery, according to that we give out.

I think also it were not amiss to make a false fire, as if all things were ready for his going down to his trial, and that he were upon the very point of being carried down, to see what that will work with him.

Lastly, I do think it most necessary, and a point principally to be regarded, that because we live in an age wherein no counsel is kept, and that it is true there is some bruit abroad, that the judges of the king's bench do doubt of the case, that it should not be treason; that it be given out constantly, and yet as it were a secret, and so a fame to slide, that the doubt was only upon the publication, in that it was never published, for that (if your Majesty marketh it) taketh away, or at least qualifies the danger of the example; for that will be no man's case.

This is all I can do to thridd your Majesty's business with a continual and settled care, turning and returning, not with any thing in the world, save only the occasions themselves, and your Majesty's good pleasure.

I had no time to report to your Majesty, at your being here, the business referred, touching Mr. John Murray. I find a shrewd ground of a title against your Majesty and the patentees of these lands, by the coheir of Thomas earl of Northumberland; for I see a fair deed, I find a reasonable consideration for the making the said deed, being for the advancement of his daughters; for that all the possessions of the earldom were entailed upon his

† Sir David Dalrymple's Memoirs and Letters, p. 29.

brother; I find it was made four years before his rebellion; and I see some probable cause why it hath slept so long. But Mr. Murray's petition speaketh only of the moiety of one of the coheirs, whereunto if your Majesty should give way, you might be prejudiced in the other moiety. Therefore, if Mr. Murray can get power of the whole, then it may be safe for your Majesty to give way to the trial of the right, when the whole shall be submitted to you.

Mr. Murray is my dear friend; but I must cut even in these things, and so I know he would himself wish no other. God preserve your Majesty.

Your Majesty's most humble and devoted subject and servant,

Febr. the 28th, 1614. FR. BACON.

CXIX. SIR FRANCIS BACON TO KING JAMES.*

MAY IT PLEASE YOUR MAJESTY,

I SEND your Majesty enclosed a copy of our last examination of Peacham, taken the 10th of this present, whereby your Majesty may perceive, that this miscreant wretch goeth back from all, and denieth his hand and all. No doubt, being fully of belief that he shall go presently down to his trial, he meant now to repeat his part which he purposed to play in the country, which was to deny all. But your Majesty, in your wisdom, perceiveth, that this denial of his hand, being not possible to be counterfeited, and sworn to by Adams, and so oft by himself formerly confessed and admitted, could not mend his case before any jury in the world, but rather aggravateth it by his notorious impudence and falsehood, and will make him more odious. He never deceived me; for when others had hopes of discovery, and thought time well spent that way, I told your Majesty *pereuntibus mille figuræ*, and that he did but now turn himself into divers shapes, to save or delay his punishment. And therefore submitting myself to your Majesty's high wisdom, I think myself bound, in conscience, to put your Majesty in remembrance, whether Sir John Sydenham shall be detained upon this man's impeaching, in whom there is no truth. Notwithstanding, that further inquiry be made of this other person, and that information and light be taken from Mr. Paulet and his servants, I hold it, as things are, necessary. God preserve your Majesty.

Your Majesty's most humble and devoted subject and servant.

March the 12th, 1614. FR. BACON.

THE EXAMINATION OF EDMUND PEACHAM AT THE TOWER, MARCH 10, 1614.†

BEING asked, when he was last at London, and where he lodged when he was there? he saith he was last at London after the end of the last parliament, but where he lodged he knoweth not.

Being asked, with what gentlemen, or others in London, when he was here last, he had conference and speech withal? he saith he had speech only with Sir Maurice Berkeley, and that about the petitions only, which had been before sent up to him by the people of the country, touching the apparitors and the grievances offered the people by the court of the officials.

Being asked, touching one Peacham, of his name, what knowledge he had of him, and whether he was not the person that did put into his mind divers of those traitorous passages which are both in his loose and contexted papers? he saith this Peacham, of his name, was a divine, a scholar, and a traveller; and that he came to him some years past, the certainty of the time he cannot remember, and lay at this examinate's house a quarter of a year, and took so much upon him, as he had scarce the command of his own house or study; but that he would be writing, sometimes in the church, sometimes in the steeple, sometimes in this examinate's study; and now saith farther, that those papers, as well loose as contexted, which he had formerly confessed to be of his own hand, might be of the writing of the said Peacham; and saith confidently, that none of them are his own hand-writing or inditing; but whatsoever is in his former examinations, as well before his Majesty's learned council, as before my lord of Canterbury, and other the lords, and others of his Majesty's privy council, was wholly out of fear, and to avoid torture, and not otherwise.

Being required to describe what manner of man the said Peacham that lay at his house was; he saith that he was tall of stature, and can make no other description of him, but saith, as he taketh it, he dwelleth sometimes at Honslow as a minister; for he hath seen his letters of orders and licence under the hand of Mr. D. Chatterton, sometime bishop of Lincoln. He denieth to set his hand to this examination.

Examinat' per FR. BACON, GER. HELWYSSE,
RANULPHE CREWE. H. YELVERTON.

THE TRUE STATE OF THE QUESTION WHETHER PEACHAM'S CASE BE TREASON OR NOT.‡

IN THE HAND-WRITING OF KING JAMES.

THE indictment is grounded upon the statute of Edward the third, that he compassed and imagined the king's death; the indictment then is according to the law, and justly founded. But how is it verified? First, then, I gather this conclusion, that since the indictment is made according to the prescription of law, the process is formal, the law is fulfilled, and the judge and jury are only to hearken to the verification of the hypothesis, and whether the minor be well proved or not.

* Sir David Dalrymple's Memorials and Letters, p. 32.

† Ibid. p. 34.

‡ Ibid p. 36.

That his writing of this libel is an overt act, the judges themselves do confess: that it was made fit for publication, the form of it bewrays the self; that he kept not these papers in a secret and safe façon, (manner,) but in an open house and lidless cask, both himself and the messenger do confess; nay, himself confesseth, that he wrote them at the desire of another man, to whom he should have shown them when they had been perfected, and who craved an account for them, which though it be denied by the other party, worketh sufficiently against the deponer himself. Nay, he confesses that in the end he meant to preach it; and though, for diminishing of his fault, he alleges, that he meant first to have taken all the bitterness out of it, that exense is altogether absurd, for there is no other stuff in, or through it all, but bitterness, which being taken out, it must be a quintessence of an alchemy, spirit without a body, or popish accidents without a substance; and then to what end would he have published such a ghost, or shadow without a substance, *cui bono?* and to what end did he so farce (stuff) it first with venom, only to scrape it out again; but it had been hard making that sermon to have tasted well, that was once so spiced, "quo semel est imbuta recens, etc." But yet this very exense is by himself overthrown again, confessing that he meant to retain some of the most crafty malicious parts in it, as, &c. [So the manuscript.]

The only question that remains then is, whether it may be verified and proved, that, by the publishing of this sermon or rather libel of his he compassed or imagined the king's death: which I prove he did by this reason; had he compiled a sermon upon any other ground, or stuffed the bulk of it with any other matter, and only powdered it here and there with some passages of reprehension of the king; or had he never so bitterly railed against the king, and upbraided him of any two or three, though monstrous vices, it might yet have been some way excusable; or yet had he spued forth all the venom that is in this libel of his, in a railing speech, either in drunkenness, or upon the occasion of any sudden passion or discontentment, it might likewise have been excused in some sort; but upon the one part, to heap up all the injuries that the hearts of men, or malice of the devil, can invent against the king, to disable him utterly, not to be a king, not to be a christian, not to be a man, or a reasonable creature, not worthy of breath here, nor salvation hereafter; and, upon the other part, not to do this hastily or rashly, but after long premeditation, first having made collections in scattered papers, and then reduced it to a method, in a formal treatise, a text chosen for the purpose, a prayer premitted, applying all his wits to bring out of that text what he could, *in malem partem*, against the king.

This, I say, is a plain proof that he intended to compass or imagine, by this means, the king's destruction. For, will ye look upon the person or quality of the man, it was the far likeliest means he could use to bring his wicked intention to pass; his person an old, unable, and unwieldy man; his quality a minister, a preacher; and that in so remote a part of the country, as he had no more means of access to the king's person, than he had ability of body, or resolution of spirit, to act such a desperate attempt with his own hands upon him; and therefore, as every creature is ablest, in their own element, either to defend themselves, or annoy their adversaries, as birds in the air, fishes in the water, and so forth, what so ready and natural means had he whereby to annoy the king as by publishing such a seditious libel? and so, under the specious pretext of conscience, to inflame the hearts of the people against him. Now, here is no illation nor inference made upon the statute, it stands *in puris naturalibus*, but only a just inference and probation of the guilty intention of this party. So the only thing the judges can doubt of, is of the delinquent's intention; and then the question will be, whether if these reasons be stronger to enforce the guiltiness of his intention, or his bare denial to clear him, since nature teaches every man to defend his life as long as he may; and whether, in case there were a doubt herein, the judges should not rather incline to that side wherein all probability lies: but if judges will needs trust better the bare negative of an infamous delinquent, without expressing what other end he could probably have, than all the probabilities, or rather infallible consequences upon the other part, caring more for the safety of such a monster, than the preservation of a crown, in all ages following, whereupon depend the lives of many millions: happy then are all desperate and seditious knaves, but the fortune of this crown is more than miserable. *Quod Deus avertat.*

CXX. TO THE KING, TOUCHING MATTER OF HIS MAJESTY'S REVENUE AND PROFIT.*

It may please your Majesty,

I may remember what Tacitus saith, by occasion that Tiberius was often and long absent from Rome. "In urbe, et parva et magna negotia imperatorem simul premunt:" but, saith he, "In recessu, dimissis rebus minoris momenti, summæ rerum magnarum magis agitantur." This maketh me think it shall be no incivility to trouble your Majesty with business, during your abode from London; knowing that your Majesty's meditations are the principal wheel of your estate; and being warranted from a former commandment which I received from you.

I do now only send your Majesty these papers enclosed, because I do greatly desire so far forth to preserve my credit with you, as thus, that whereas lately, perhaps out of too much desire, which inducetb too much belief, I was bold to say, that I thought it as easy for your Majesty to come out of want, as to go forth of your gallery; your Majesty would not take me for a dreamer, or a projector; I send your Majesty therefore some grounds of my hopes. And for that paper, which I have gathered of increasements operate, I beseech you to give me leave to think, that if any of the particulars do fail,

* Rawley's Resuscitatio.

it will be rather for want of workmanship in those that shall deal in them, than want of materials in the things themselves. The other paper hath many discarding cards; and I send it chiefly that your Majesty may be the less surprised by projectors; who pretend sometimes great discoveries and inventions in things, that have been propounded, and, perhaps, after a better fashion, long since. God Almighty preserve your Majesty.

Your Majesty's most humble and devoted subject and servant,

FR. BACON.

25 April, 1615.

CXXI. TO THE KING.*

IT MAY PLEASE YOUR EXCELLENT MAJESTY,

MR. ST. JOHN his day is past, and well past. I hold it to be *Janus Bifrons*; it hath a good aspect to that which is past, and to the future; and doth both satisfy and prepare. All did well; my lord chief justice delivered the law for the benevolence strongly; I would he had done it timely. Mr. Chancellor of the exchequer† spake finely, somewhat after the manner of my late lord privy seal;‡ not all out so sharply, but as elegantly. Sir Thomas Lake, who is also new in that court, did very well, familiarly and counsellor-like.§ My lord of Pembroke,‖ who is likewise a stranger there, did extraordinarily well, and became himself well, and had an evident applause. I meant well also; and because my information was the ground; having spoken out of a few heads which I had gathered, for I seldom do more, I set down, as soon as I came home, cursorily, a frame of that I had said; though I persuade myself I spake it with more life. I have sent it to Mr. Murrray sealed; if your Majesty have so much idle time to look upon it, it may give some light of the day's work: but I most humbly pray your Majesty to pardon the errors. God preserve you ever.

Your Majesty's most humble subject and devoted servant,

FR. BACON.

April 29, 1615.

* Rawley's Resuscitatio.

† The chancellor of the exchequer here meant was Sir Fulke Greville, who being early initiated into the court of queen Elizabeth, became a polite and fine gentleman; and in the 18th of king James was created lord Brooke. He erected a noble monument for himself on the north side of Warwick church, which hath escaped the late desolation, with this well-known inscription, "Fulke Greville, servant to queen Elizabeth, counsellor to king James, and friend to Sir Philip Sydney." Nor is he less remembered by the monument he has left in his writings and poems, chiefly composed in his youth, and in familiar exercises with the gentleman I have before mentioned. *Stephens.*

‡ Late earl of Northampton.

§ Sir Thomas Lake was about this time made one of the principal secretaries of state, as he had been formerly Latin secretary to queen Elizabeth, and before that time bred under Sir Francis Walsingham. But in the year 1618, falling into the king's displeasure, and being engaged in the quarrels of his wife and daughter the lady Roos, with the countess of Exeter; he was at first suspended from the execution of his place, and afterwards removed, and deeply censured and fined in the star-chamber; although it is said the king then gave him in open court this public eulogy, that he was a minister of state fit to serve the greatest prince in Europe. Whilst this storm was hanging over his head, he writ many letters to the king and the marquis of Buckingham, which I have seen, complaining of his misfortune, that his ruin was likely to proceed from the assistance he gave to his nearest relations. *Stephens.*

‖ William earl of Pembroke, son to Henry Herbert earl of Pembroke, lord president of the council in the marches of Wales, by Mary his wife, a lady in whom the Muses and Graces seemed to meet; whose very letters, in the judgment of one who saw many of them, declared her to be mistress of a pen not inferior to that of her brother, the admirable Sir Philip Sydney, and to whom he addressed his Arcadia. Nor did this gentleman degenerate from their wit and spirit, as his own poems, his great patronage of learned men, and resolute opposition to the Spanish match, did, among other instances, fully prove. In the year 1616, he was made lord chamberlain, and chosen chancellor of the university of Oxford. He died suddenly on the 10th of April 1630, having just completed fifty years. But his only son deceasing a child before him, his estate and honours descended upon his younger brother, Philip earl of Montgomery, the lineal ancestor of the present noble and learned earl. *Stephens.*

CXXII. TO THE KING, CONCERNING THE NEW COMPANY.¶

IT MAY PLEASE YOUR MOST EXCELLENT MAJESTY,

YOUR Majesty shall shortly receive the bill for the incorporation of the new company,** together with a bill for the privy seal, being a dependency thereof: for this morning I subscribed and docketted them both. I think it therefore now time to represent to your Majesty's high wisdom that which I conceive, and have had long in my mind, concerning your Majesty's service, and honourable profit in this business.

¶ Rawley's Resuscitatio.

** Among other projects for supplying his Majesty with money, after his abrupt dissolution of the parliament, there was one proposed through the lord treasurer's means by Sir William Cockayne, an alderman of London. For the society or fellowship of merchant adventurers, having enjoyed by licence from the crown a power of exporting yearly several thousands of English cloths undyed; it was imagined that the king would not only receive an increase in his customs by the importation of materials necessary for dying, but the nation a considerable advantage in employing the subject, and improving the manufacture to its utmost before it was exported. This proposition being besides attended with the offer of an immediate profit to his Majesty, was soon embraced; the charter granted to the merchant adventurers recalled, and Sir William Cockayne and several other traders incorporated upon certain conditions, as appears in part from this letter; though some other letters in the same and the following year inform us what difficulties the king and council, and indeed the whole kingdom sustained thereby. For the trading towns in the Low Countries and in Germany, which were the great mart and staple of these commodities, perceiving themselves in danger of losing the profit, which they had long reaped by dying and dressing great quantities of English cloth, the Dutch prohibited the whole commodity; and the materials being either dearer here or the manufacturers less skilled in fixing of the colours, the vent of cloth was soon at a stand; upon which the clamour of the countries extended itself to the court. So that, after several attempts to carry on the design, Sir Fr. Bacon finding the new company variable in themselves, and not able to comply with their proposals, but making new and springing demands, and that the whole matter was more and more perplexed, sent on the 14th of October, 1616, a letter to the lord Villiers, enclosing his reasons why the new company was no longer to be trusted, but the old company to be treated with and revived. Accordingly, pursuant to a power of revocation, contained in the new charter, it was recalled, and a proclamation published for restoring the old company, dated August 12. 1617; and soon after another charter granted them upon their payment of 50,000*l.* *Stephens's* Introduct. p. 38, 39.

This profit, which hath proceeded from a worthy service of the lord treasurer, I have from the beginning constantly affected; as may well appear by my sondry laboors from time to time in the same: for I hold it a worthy character of your Majesty's reign and times; insomuch, as thongh your Majesty might have at this time, as is spoken, a great annual benefit for the qoitting of it; yet I shall never be the man that should wish for your Majesty to deprive yourself of that beatitude, "Beatius est dare quam accipere," in this cause; bnt to saerifice your profit, though as your Majesty's state is, it be precious to you, to so great a good of your kingdom; although this projeet is not without a profit immediate unto you, by the increasing of eustoms upon the materials of dyes.

But here is the case: the new company by this patent and privy seal are to have two things, wholly diverse from the first intention, or rather *ex diametro* opposite nnto the same; which nevertheless they must of necessity have, or else the work is overthrown: so as I may eall them *mala necessaria*, but yet withal temporary. For as men make war to have peace; so these merchants must have lieenee for whites, to the end to banish whites; and they must have licence to use tenters, to the end to banish tenters.

This is therefore that I say; your Majesty, upon these two points, may justly, and with honour, and with preservation of your first intention inviolate, demand profit in the interim, as long as these unnatural points continue, and then to cease. For your Majesty may be pleased to observe, that they are to have all the old company's profit by the trade of whites; they are again to have, upon the proportion of eloths which they shall vend dyed and dressed, the Flemings' profit npon the tenter. Now then, I say, as it had been to good hnsbandry for a king to have taken profit for them, if the project could have been effected at once, as was voiced, so on the other side it might be, perchance, too little husbandry and providenee to take nothing of them, for that whieh is merely lucrative to them in the mean time. Nay, I say farther, this will greatly conduce, and be a kind of seeurity to the end desired. For I always feared, and do yet fear, that when men, by condition merchants, though never so honest, have gotten into their hands the trade of whites, and the dispensation to tenter, wherein they shall reap profit for that whieh they never sowed; but have gotten themselves certainties, in respect of the state's hopes: they are like eoough to sleep upon this as upon a pillow, and to make no haste to go on with the rest. And though it may be said, that this is a thing will easily appear to the state, yet, no doubt, meaus may be devised and found to draw the business in length. So that I conelude, that if yonr Majesty take a profit of them in the interim, considering you refose profit from the old company, it will be both spur and bridle to them, to make them pace aright to your Majrsty's rnd.

This in all humbleness, according to my vowed eare and fidelity, being no man's man but your Majesty's, I present, leave, and submit to your Majesty's better judgment, and I could wish your Majesty would speak with Sir Thomas Lake in it; who, besides his good habit whieh he hath in busioeas, beareth, methinks, an indifferent hand in this particular; and, if it please your Majesty, it may proceed as from yoorself, and not as a motion or observatioo of mine.

Your Majesty need not in this to be straitrned in time, as if this most be demanded or treated before you sign their bill. For I foreseeing this, and foreseeing that many things might fall out whieh I could not foresee, have handled it so, as with their good contentmrnt there is a power of revocation inserted into their patent. And so commending your Majesty to God's blessing and precious eustody, I rest,

Your Majesty's most humble and devoted subject and servant,

FR. BACON.

Aug. 12, 1615.

CXXIII. TO SIR GEORGE VILLIERS, ABOUT ROPER'S PLACE.*

Sir,

Sendino to the king npon occasion, I would not fail to salute you by my letter; whieh, that it may be more than two lines, I add this for news; that as I was sitting by my lord chief justiee, npon the commission for the indicting of the great person; one of the judges asked him, whether Roper were dead; he said, he for his part knew not; another of the judges answered, It should eoncern you, my lord, to know it. Whereupon he turned his speech to me, and said, No, Mr. Attorney, I will not wrestle now in my latter times. My lord, said I, you speak like a wise man. Well, saith he, they have had no lock with it that have had it. I said again, those days be past. Here you have the dialogue to make yon merry. But in sadness, I was glad to pereeive he meant not to contest. I can hut honour and love you, and rest

Your assured friend and servant,

FR. BACON.

Jan. 22, 1615.

CXXIV. SIR FRANCIS BACON TO KING JAMES.†

It may please your most excellent Majesty,

It pleased your Majesty to commit to my eare and trust for Westminster-hall three particulars; that of the *rege inconsulto*, whieh eoncerneth Murray; that of the commendams, which concerneth the bishop of Lincoln; and that of the *habeas corpus*, whieh eoncerneth the chaneery.

These canses, although I gave them private additions, yet they are merely, or at least chiefly, yours; and the die runneth upon your royal prerogatives' diminution, or entire conservation. Of these it is my duty to give your Majesty a short aecount.

* Rawley's Resuscitatio.

† Sir David Dalrymple's Memorials and Letters, p. 46.

For that of the *rege inconsulto*, I argued the same in the king's bench on Thursday last. There argued on the other part Mr. George Crook, the judge's brother, an able book-man, and one that was manned forth with all the furniture that the bar could give him, I will not say the bench, and with the study of a long vacation. I was to answer, which hath a mixture of the sudden; and of myself I will not, nor cannot say any thing, but that my voice served me well for two hours and a half; and that those that understood nothing, could tell me that I lost not one auditor that was present in the beginning, but staid till the latter end. If I should say more, there were too many witnesses, for I never saw the court more full, that mought disprove me.

My lord Coke was pleased to say, that it was a famous argument; but withal, he asked me a politic and tempting question: for taking occasion by a notable precedent I had cited, where upon the like writ brought, all the judges in England assembled, and that privately, lest they should seem to dispute the king's commandment, and upon conference, with one mind agreed, that the writ must be obeyed. Upon this hold, my lord asked me, whether I would have all the rest of the judges called to it. I was not caught: but knowing well that the judges of the common pleas were most of all others interested in respect of the prothonotaries, I answered civilly, that I could advise of it; but that I did not distrust the court; and, besides, I thought the case so clear, as it needed not.

Sir, I do perceive, that I have not only stopped, but almost turned the stream: and I see how things cool by this, that the judges that were wont to call so hotly upon the business, when they had heard, of themselves took a fortnight day to advise what they will do, by which time the term will be near at an end; and I know they little expected to have the matter so beaten down with book-law, upon which my argument wholly went: so that every mean student was satisfied. Yet, because the times are as they are, I could wish, in all humbleness, that your Majesty would remember and renew your former commandment which you gave my lord chief justice in Michaelmas term, which was that after he had heard your attorney, which is now done, he should forbear farther proceeding till he had spoke with your Majesty.

It concerneth your Majesty threefold. First, in this particular of Murray; next, in consequence of fourteen several patents, part in queen Elizabeth's time, some in your Majesty's time, which depend upon the like question; but chiefly, because this writ is a mean provided by the ancient law of England, to bring any case that may concern your Majesty in profit or power, from the ordinary benches, to be tried and judged before your chancellor of England, by the ordinary and legal part of his power: and your Majesty knoweth your chancellor is ever a principal counsellor, and instrument of monarchy, of immediate dependence upon the king; and therefore like to be a safe and tender guardian of the royal rights.

For the case of the commendams, a matter likewise of great consequence, though nothing near the first, this day I was prepared to have argued it before all the judges; but, by reason of the sickness of the sergeant which was provided to argue on the other side, although I pressed to have had some other day appointed this term; yet it pleased divers of the judges to do me the honour, as to say it was not fit any should argue against me, upon so small time of warning, it is adjourned to the first Saturday next term.

For the matter of the *habeas corpus*, I perceive this common employment of my lord chancellor, and my lord chief justice, in these examinations, is such a *vinculum*, as they will not square while these matters are in hand, so that there is *altum silentium* of that matter. God ever preserve your Majesty.

Your Majesty's most humble and bounden subject and servant,

FR. BACON.

27th Jan. 1615.

CXXV. TO THE KING, ADVISING HIM TO BREAK OFF WITH THE NEW COMPANY.*

IT MAY PLEASE YOUR EXCELLENT MAJESTY,

I SPAKE yesternight long with my lord Coke; and for the *rege inconsulto*, I conceive by him it will be an *amplius deliberandum censeo*, as I thought at first, so as for the present your Majesty shall not need to renew your commandment of stay. I spake with him also about some propositions concerning your Majesty's casual revenue; wherein I found him to consent with me fully, assuming, nevertheless, that he had thought of them before; but it is one thing to have the vapour of a thought, another to digest business aright. He, on his part, imparted to me divers things of great weight concerning the reparation of your Majesty's means and finances, which I heard gladly; insomuch as he perceiving the same, I think was the readier to open himself to me in one circumstance, which he did much inculcate. I concur fully with him that they are to be held secret; for I never saw but that business is like a child, which is framed invisibly in the womb; and if it come forth too soon, it will be abortive. I know, in most of them, the prosecution must rest much upon myself. But I that had the power to prevail in the farmers' case of the French wines, without the help of my lord Coke, shall be better able to go through these with his help, the ground being no less just. And this I shall ever add of mine own, that I shall ever respect your Majesty's honour no less than your profit; and shall also take care, according to my pensive manner, that that which is good for the present, have not in it hidden seeds of future inconveniences.

The matter of the new company was referred to me by the lords of the privy council; wherein, after some private speech with Sir Lionel Cranfield, I made that report which I held most agreeable to truth, and your Majesty's service. If this new com-

* Rawley's Resuscitatio.

pany break, it must either be put upon the patent, or upon the order made by themselves. For the patent, I satisfied the board, that there was no tittle in it which was not either *verbatim* in the patent of the old company, or by special warrant from the table inserted. My lord Coke, with much respect to me, acknowledged, but disliked the old patent in itself, and disclaimed his being at the table when the additions were allowed. But in my opinion, howsoever my lord Coke, to magnify his science in law, draweth every thing, though sometimes improperly and unseasonably, to that kind of question, it is not convenient to break the business upon those points. For considering they were but clauses that were in the former patents, and in many other patents of companies; and that the additions likewise passed the allowance of the table, it will be but clamoured, and perhaps conceived, that to quarrel them now, is but an occasion taken; and that the times are but changed, rather than the matter. But that which preserveth entire your Majesty's honour, and the constancy of your proceedings, is to put the breach upon their orders.

For this light I gave in my report, which the table readily apprehended, and much approved; that if the table reject their orders as unlawful and unjust, it doth free you from their contract: for whosoever contracteth or undertaketh any thing, is always understood to perform it by lawful means; so as they have plainly abused the state, if that which they have undertaken be either impossible or unjust.

I am bold to present this consideration to that excellent faculty of your Majesty's judgment: because I think it importeth that future good which may grow to your Majesty in the close of this business; that the falling off be without all exception. God have you in his precious custody.

Your Majesty's most humble and bounden subject and servant,

Feb. 3, 1615. FR. BACON.

CXXVI. TO THE KING, TOUCHING THE CHANCELLOR'S SICKNESS.*

IT MAY PLEASE YOUR MOST EXCELLENT MAJESTY,

I AM glad to understand by Mr. Murray, that your Majesty accepteth well of my poor endeavours in opening unto you the passages of your service, that business may come the less crude, and the more prepared to your royal judgment; the perfection whereof, as I cannot expect they should satisfy in every particular; so, I hope, through my assiduity there will result a good total.

My lord chancellor's sickness falleth out *duro tempore*. I have always known him a wise man, and of just elevation for monarchy: but your Majesty's service must not be mortal. And if you lose him, as your Majesty hath now of late purchased many hearts by depressing the wicked; so God doth minister unto you a counterpart to do the like, by raising the honest. God evermore preserve your Majesty.

Your Majesty's most humble subject and bounden servant,

FR. BACON.

Feb. 9, 1615.

* Rawley's Resuscitatio.

CXXVI. TO THE KING.†

IT MAY PLEASE YOUR MOST EXCELLENT MAJESTY,

YOUR worthy chancellor, I fear, goeth his last day. God hath hitherto used to weed out such servants as grew not fit for your Majesty; but now he hath gathered to himself one of the choicer plants, a true sage, or *salvia*, out of our garden; but your Majesty's service must not be mortal.

Upon this heavy accident I pray your Majesty, in all humbleness and sincerity, to give me leave to use a few words. I must never forget, when I moved your Majesty for the attorney's place, that it was your own sole act, and not my lord of Somerset's; who when he knew your Majesty had resolved it, thrust himself into the business to gain thanks; and therefore I have no reason to pray to saints.

I shall now again make oblation to your Majesty, first, of my heart, then, of my service, thirdly, of my place of attorney, which I think is honestly worth 6000*l.* per annum, and fourthly, of my place in the star-chamber, which is worth 1600*l.* per annum; and with the favour and countenance of a chancellor much more. I hope I may be acquitted of presumption if I think of it, both because my father had the place, which is some civil inducement to my desire, and I pray God your Majesty may have twenty no worse years in your greatness, than queen Elizabeth had in her model, after my father's placing, and chiefly because the chancellor's place, after it went to the law, was ever conferred upon some of the learned counsel, and never upon a judge. For Audeley was raised from king's serjeant; my father from attorney of the wards; Bromley from solicitor; Puckering from queen's serjeant: Egerton from master of the rolls, having newly left the attorney's place. Now, I beseech your Majesty, let me put you the present case truly. If you take my lord Coke, this will follow; first, your Majesty shall put an overruling nature into an overruling place, which may breed an extreme; next, you shall blunt his industries in matter of your finances, which seemeth to aim at another place; and lastly, popular men are no sure mounters for your Majesty's saddle. If you take my lord Hobart, you shall have a judge at the upper end of your council-board, and another at the lower end; whereby your Majesty will find your prerogative pent; for though there should be emulation between them, yet as legists they will agree in magnifying that wherein they are best; he is no statesman, but an economist wholly for himself; so as your Majesty, more than an outward form, will find little help in him for the business.

† Stephens's First Collection, p. 84.

If you take my lord of Canterbury, I will say no more, but the chancellor's place requires a whole man; and to have both jurisdictions, spiritual and temporal, in that height, is fit but for a king.

For myself, I can only present your Majesty with "gloria in obsequio;" * yet I dare promise, that if I sit in that place, your business shall not make such short turns upon you, as it doth; but when a direction is once given, it shall be pursued and performed, and your Majesty shall only be troubled with the true care of a king, which is, to think what you would have done in chief, and not how for the passages.

I do presume also, in respect of my father's memory, and that I have been always gracious in the lower house, I have some interest in the gentlemen of England, and shall be able to do some good effect in rectifying that body of parliament-men, which is *cardo rerum*. For let me tell your Majesty, that that part of the chancellor's place, which is to judge in equity between party and party, that same *regnum judiciale*, which since my father's time is but too much enlarged, concerneth your Majesty least, more than the acquitting of your conscience for justice: but it is the other parts, of a moderator amongst your council, of an overseer over your judges, of a planter of fit justices and governors in the country, that importeth your affairs and these times most.

I will add also, that I hope by my care the inventive part of your council will be strengthened; who now commonly do exercise rather their judgments than their inventions, and the inventive part cometh from projectors and private men, which cannot be so well; in which kind my lord of Salisbury had a good method, if his ends had been upright.

To conclude: if I were the man I would be, I should hope, that as your Majesty hath of late won hearts by depressing, you should in this lose no hearts by advancing: for I see your people can better skill of *concretum* than *abstractum*, and that the waves of their affections flow rather after persons than things: so that acts of this nature, if this were one, do more good than twenty bills of grace. If God call my lord, the warrants and commissions which are requisite for the taking of the seal, and for the working with it, and for the reviving of warrants under his hand, which die with him, and the like, shall be in readiness. And in this, time presseth more, because it is the end of a term, and almost the beginning of the circuits; so that the seal cannot stand still: but this may be done as heretofore by commission, till your Majesty hath resolved of an officer. God ever preserve your Majesty.

Your Majesty's most humble subject and bounden servant,

FR. BACON.

Feb. 12, 1615.

* "Gloria in obsequio" is taken from the sixth book of the Annals of Tacitus: where some persons being accused for their intimacy with Sejanus, the late great favourite of the emperor Tiberius; M. Terentius, a Roman knight, did not, like others, excuse or deny the same for fear of punishment; but doth in the senate make an ingenuous confession thereof, and gives his reasons why he not only courted, but rejoiced in obtaining the friendship of Sejanus. And then addresses himself as if speaking to Tiberius, in these words; "Non est nostrum æstimare, quem supra cæteros, et quibus de causis extollas: tibi summum rerum judicium dii dedere: nobis *obsequii gloria* relicta est." "It does not become us to inquire into the person you are pleased to prefer above others, or into the reasons: to you heaven has given a consummate judgment; to us there remains the glory of a cheerful obedience." *Stephens.*

CXXVIII. A LETTER TO THE KING, OF MY LORD CHANCELLOR'S AMENDMENT, AND THE DIFFERENCE BEGUN BETWEEN THE CHANCERY AND KING'S BENCH.†

IT MAY PLEASE YOUR EXCELLENT MAJESTY,

I do find, God be thanked, a sensible amendment in my lord chancellor: I was with him yesterday in private conference about half an hour; and this day again, at such a time as he did seal, which he endured well almost the space of an hour, though the vapour of wax be offensive to him. He is free from a fever, perfect in his powers of memory and speech; and not hollow in his voice nor look; he hath no panting or labouring respiration; neither are his coughs dry or weak. But whosoever thinketh his disease is but melancholy, he maketh no true judgment of it; for it is plainly a formed and deep cough, with a pectoral surcharge; so that at times he doth almost *animam agere*. I forbear to advertise your Majesty of the care I took to have commissions in readiness, because Mr. Secretary Lake hath let me understand, he signified as much to your Majesty: but I hope there shall be no use for them at this time. And as I am glad to advertise your Majesty of the amendment of your chancellor's person, so I am sorry to accompany it with an advertisement of the sickness of your chancery court, though by the grace of God that cure will be much easier than the other. It is true I did lately write to your Majesty, that for the matter of the *Habeas corpora*, which was the third matter in law you had given me in charge, I did think the communion in service between my lord chancellor and my lord chief justice, in the great business of examination, would so join them as they would not square at this time; but pardon me, I humbly pray your Majesty, if I have too reasonable thoughts.

And yet that which happened the last day of term, concerning certain indictments in the nature of *præmunire*, preferred into the king's bench, but not found, is not so much as is voiced abroad; though I must say, it is "omni tempore nimium, et hoc tempore alienum:" and therefore, I beseech your Majesty not to give any believing ear to reports, but to receive the truth from me, that am your attorney-general, and ought to stand indifferent for jurisdictions of all courts; which account I cannot give your Majesty now, because I was then absent; and some are now absent, which are properly and authentically to inform me touching that which passed. Neither let this any ways disjoint your other business, for there is a time for all things, and this very accident may be turned to good. Not that I am of opinion that that same cunning maxim of

† Rawley's Resuscitatio.

"Separa et impera," which sometimes holdeth in persons, can well take place in jurisdictions; but because some good occasion by this excess may be taken to settle that which would have been more dangerous, if it had gone out by little and little. God ever preserve your Majesty.

Your Majesty's most humble subject and most bounden servant,

FR. BACON.

February 15, 1615.

CXXIX. TO SIR GEORGE VILLIERS.*

SIR,

I RECEIVED this morning from you two letters by the same bearer; the one written before, the other after his Majesty had received my last.

In this difference between the two courts of chancery and king's bench, for so I had rather take it for this time, than between the persons of my lord chancellor and my lord chief justice, I marvel not, if rumour get way of true relation; for I know fame hath swift wings, especially that which hath black feathers: but within these two days, for sooner I cannot be ready, I will write unto his Majesty both the narrative truly, and my opinion sincerely; taking much comfort that I serve such a king that hath God's property in discerning truly of men's hearts. I purpose to speak with my lord chancellor this day: and so to exhibit that cordial of his Majesty's grace, as I hope that other accident will rather rouse and raise his spirit, than deject him, or incline him to relapse. Meanwhile I commend the wit of a mean man that said this other day, "Well, the next term you shall have an old man come with a besom of wormwood in his hand that will sweep away all this." For it is my lord chancellor's fashion, specially towards the summer, to carry a posy of wormwood. I write this letter in haste to return your messenger with it. God keep you; and long and happily may you serve his Majesty.

Your true and affectionate servant,

FR. BACON.

Feb. 19, 1615.

Sir, I thank you for your inward letter; I have burned it as you commanded: but the fire it hath kindled in me will never be extinguished.

CXXX. TO SIR GEORGE VILLIERS, ABOUT SWEARING HIM INTO THE PRIVY COUNCIL.†

SIR,

MY lord chancellor's health growing with the days, and his resignation being an uncertainty, I would be glad you went on with my first motion, my swearing privy counsellor. This I desire not so much to make myself more sure of the other, and to put it past competition, for herein I rest wholly upon the king and your excellent self, but because I find hourly that I need this strength in his Majesty's service, both for my better warrant and satisfaction of my conscience, that I deal not in things above my vocation; and for my better countenance and prevailing, where his Majesty's service is, under any pretext, opposed, I would it were despatched. I remember a greater matter than this was despatched by a letter from Royston, which was the placing of the archbishop that now is; and I imagine the king did it on purpose, that the act might appear to be his own.

My lord chancellor told me yesterday in plain terms, that if the king would ask his opinion touching the person that he would commend to succeed him upon death or disability, he would name me for the fittest man. You may advise, whether use may not be made of this offer.

I sent a pretty while since a paper to Mr. John Murray, which was indeed a little remembrance of some things past, concerning my honest and faithful services to his Majesty; not by way of boasting, from which I am far, but as tokens of my studying his service uprightly and carefully. If you be pleased to call for the paper, which is with Mr. John Murray, and to find a fit time that his Majesty may cast an eye upon it, I think it will do no hurt; and I have written to Mr. Murray to deliver the paper, if you call for it. God keep you in all happiness.

Your truest servant,

Feb. 1, 1615. FR. BACON.

CXXXI. TO THE KING, CONCERNING THE PRÆMUNIRE IN THE KING'S BENCH, AGAINST THE CHANCERY.‡

IT MAY PLEASE YOUR MOST EXCELLENT MAJESTY,

I WAS yesterday in the afternoon with my lord chancellor according to your commandment which I received by the master of the horse, and find the old man well comforted, both towards God, and towards the world: and that same middle comfort which is divine and human, proceeding from your Majesty, being God's lieutenant on earth, I am persuaded, hath been a great cause that such a sickness hath been portable to such an age. I did not fail in my conjecture, that this business of the chancery hath stirred him; he showeth to despise it, but he is full of it, and almost like a young duellist that findeth himself behind-hand.

I will now, as your Majesty requireth, give you a true relation of that which hath passed: neither will I decline your royal commandment for delivering my opinion also, though it be a tender subject to write on; but I that account my being but as an accident to my service, will neglect no duty upon self-safety.

First, it is necessary I let your Majesty know the ground of the difference between the two courts, that your Majesty may the better understand the narrative.

* Rawley's Resuscitatio. † Ibid. ‡ Rawley's Resuscitatio.

There was a statute made 27 Edw. III. cap. 1, which, no doubt, in the principal intention thereof, was ordained against those that sued to Rome; wherein there are words somewhat general against any "that questioneth or impeacheth any judgment given in the king's courts, or in any other court." Upon these doubtful words, other courts, the controversy groweth. For the sounder interpretation taketh them to be meant of those courts, which though locally they were not held at Rome, or where the pope's chair was, but here within the realm; yet in their jurisdiction had their dependence upon the court of Rome; as were the court of the legate here, and the courts of the archbishops and bishops, which were then but subordinate judgment-seats to that high tribunal of Rome. And for this construction, the opposition of the words, if they be well observed, between the king's courts and other courts, maketh very much; for it importeth as if those other courts were not the king's courts. Also the main scope of the statute fortifieth the same. And lastly, the practice of many ages. The other interpretation, which cleaveth to the letter, expoundeth the king's courts to be the courts of law only, and other courts to be courts of equity, as the chancery, exchequer-chamber, duchy, &c. Though this also flieth indeed from the letter, for that all these are the king's courts.

There is also another statute, which is but a simple prohibition, and not with a penalty of a *præmunire*, as the other is, "that after judgments given in the king's courts, the parties shall be in peace, except the judgment be undone by error or attaint," which is a legal form of reversal. And of this also I hold the sounder interpretation to be to settle possessions against disturbances, and not to take away remedy in equity, where those judgments are obtained *ex rigore juris*, and against good conscience.

But upon these two statutes there hath been a late conceit in some, that if a judgment pass at the common law against any, that he may not after sue for relief in chancery; and if he doth, both he, and his counsel, and his solicitors, yea and the judge in equity himself, are within the danger of those statutes.

Here your Majesty hath the true state of the question, which I was necessarily to open to you first, because your Majesty calleth for this relation, not as news, but as business. Now to the historical part.

It is the course of the king's bench, that they give in charge to a grand jury offences of all natures, to be presented within Middlesex, where the said court is; and the manner is, to enumerate them as it were in articles. This was done by justice Crook, the Wednesday before the term ended. And that article, If any man, after a judgment given, had drawn the said judgment to a new examination in any other court, was by him specially given in charge; which had not used to be given in charge before. It is true, it was not solemnly dwelt upon, but as it were thrown in amongst the rest.

The last day of the term, and, that which all men condemn, the supposed last day of my lord chancellor's life, there were two indictments preferred of *præmunire*, for suing in chancery after judgment in common law; the one by Rich. Glanville, the other by William Allen: the former against Coortney, the party in chancery, Gibb the counsellor, and Deurst the clerk; the latter against alderman Bowles and Humfrey Smith, parties in chancery; serjeant More the counsellor, Elias Wood, solicitor in the cause, and Sir John Tindal, master of the chancery, and an assessor to my lord chancellor.

For the cases themselves, it were too long to trouble your Majesty with them; but this I will say, if they were set on that preferred them, they were the worst marksmen that ever were that set them on. For there could not have been chosen two such causes to the honour and advantage of the chancery, for the justness of the decrees, and the foulness and scandal both of fact and person, in those that impeach the decrees.

The grand jury, consisting, as it seemeth, of very substantial and intelligent persons, would not find the bills, notwithstanding they were clamoured by the parties, and twice sent back by the court; and in conclusion, resolutely seventeen of nineteen found an *Ignoramus*; wherein, for that time, I think *Ignoramus* was wiser than those that know too much.

Your Majesty will pardon me, if I be sparing in delivering to you some other circumstances of aggravation, and of concurrences of some like matters the same day; as if it had been some fatal constellation. They be not things so sufficiently tried, as I dare put them into your ear.

For my opinion, I cannot but begin with this preface, that I am infinitely sorry that your Majesty is thus put to salve and cure, not only accidents of time, but errors of servants; for I account this a kind of sickness of my lord Coke's, that comes almost in as ill a time as the sickness of my lord chancellor. And as, I think, it was one of the wisest parts that ever he played, when he went down to your Majesty to Royston, and desired to have my lord chancellor joined with him; so this was one of the weakest parts that ever he played, to make all the world perceive that my lord chancellor is severed from him at this time.

But for that which may concern your service, which is my end, leaving other men to their own ways, first, my opinion is plainly that my lord Coke at this time is not to be disgraced; both because he is so well habituate for that which remaineth of these capital causes, and also for that which I find is in his breast touching your finances and matters of repair of your estate; and, if I might speak it, as I think it were good his hopes were at an end in some kind, so I could wish they were raised in some other.

On the other side, this great and public affront, not only to the reverend and well deserving person of your chancellor, and at a time when he was thought to lie on dying, which was barbarous, but to your high court of chancery, which is the court of your absolute power, may not, in my opinion, pass lightly, nor end only in some formal atonement, but use is to be made thereof for the settling of your

authority and strengthening of your prerogative according to the true rules of monarchy.

Now to reconcile and accommodate these two advices, which seem almost opposite; first, your Majesty may not see it, though I confess it to be suspicious, that my lord Coke was any way aforehand privy to that which was done; or that he did set it or animate it, but only took the matter as it came before him; and that his error was only, that at such a time he did not divert it in some good manner.

Secondly, if it be true, as is reported, that any of the puisne judges did stir this business; or that they did openly revile and menace the jury for doing their conscience, as they did honestly and truly, I think that judge is worthy to lose his place. And, to be plain with your Majesty, I do not think there is any thing a greater *polychreston*, or *ad multa utile* to your affairs, than upon a just and fit occasion to make some example against the presumption of a judge in causes that concern your Majesty, whereby the whole body of those magistrates may be contained the better in awe; and it may be this will light upon no unfit subject of a person, that is rude, and that no man cares for.

Thirdly, if there be no one so much in fault, which I cannot yet affirm either way, and there must be a just ground, God forbid else, yet I should think, that the very presumption of going so far, in so high a cause, deserveth to have that done which was done in this very case upon the indictment of serjeant Heale in queen Elizabeth's time; that the judges should answer it upon their knees before your Majesty or your council, and receive a sharp admonition: at which time also, my lord Wray, being then chief justice, slipt the collar and was forborn.

Fourthly, for the persons themselves, Glanville and Allen, which are base fellows and turbulent, I think there will be discovered and proved against them, besides the preferring of the bills, such combinations and contemptuous speeches and behaviours, as there will be good ground to call them, and perhaps some of their petty counsellors at law, into the star-chamber.

In all this which I have said your Majesty may be pleased to observe, that I do not engage you much in the main point of the jurisdiction, for which I have a great deal of reason, which I now forbear. But two things I wish to be done: the one, that your Majesty take this occasion to redouble unto all your judges your ancient and true charge and rule, That you will endure no innovating the point of jurisdiction, but will have every court impaled within their own precedents, and not assume to themselves new powers upon conceits and inventions of law; the other, that in these high causes that touch upon state and monarchy, your Majesty give them strait charge, that upon any occasions intervenient hereafter, they do not make the vulgar party to their contestations, by public handling them, before they have consulted with your Majesty, to whom the reglement of those things only appertaineth.

To conclude, I am not without hope, that your Majesty managing this business according to your great wisdom, unto which I acknowledge myself not to be worthy to be card-holder, or candle-holder, will make profit of this accident as a thing of God's sending.

Lastly, I may not forget to represent to your Majesty, that there is no thinking of arraignments until these things be somewhat accommodated, and some outward and superficial reconciliation at least made between my lord chancellor and my lord chief justice; for this accident is a banquet to all the delinquent's friends. But this is a thing that falleth out naturally of itself, in respect of the judges going circuit, and my lord chancellor's infirmity with hope of recovery: and although this protraction of time may breed some doubt of mutability, yet I have lately learned out of an excellent letter of a certain king, that the sun showeth sometimes watry to our eyes, but when the cloud is gone, the sun is as before. God ever preserve your Majesty.

Your Majesty's most humble subject and bounden servant,

FR. BACON.

Feb. 21, 1615.

CXXXII. TO THE KING, ON THE BREACH OF THE NEW COMPANY.*

IT MAY PLEASE YOUR MOST EXCELLENT MAJESTY,

YOUR privy council have wisely and truly discerned of the orders and demands of the new company, that they are unlawful and unjust; and themselves have now acknowledged the work impossible without them, by their petition in writing now registered in the council book; so as this conclusion of their own making, is become peremptory and final to themselves; and the impossibility confessed, the practice and abuse reserved to the judgment the state shall make of it.

This breach then of this great contract is wholly on their part, which could not have been if your Majesty had broken upon the patent; for the patent was your Majesty's act, the orders are their act; and in the former case they had not been liable to farther question, now they are.

There rest two things to be considered; the one, if they, like Proteus when he is hard held, shall yet again vary their shape; and shall quit their orders convinced of injustice, and lay their imposition only upon the trade of whites, whether your Majesty shall farther expect: the other, if your Majesty dissolve them upon this breach on their part, what is farther to be done for the setting of the trade again in joint, and for your own honour and profit: in both which points I will not presume to give opinion, but only to break the business for your Majesty's better judgment.

For the first, I am sorry the occasion was given by my lord Coke's speech at this time of the commitment of some of them, that they should seek *omnem movere lapidem* to help themselves. Better it had been, if, as my lord Fenton said to me that morning very judiciously and with a great deal of

* Rawley's Resuscitatio.

foresight, that for that time they should have had a bridge made for them to be gone. But my lord Coke floweth according to his own tides, and not according to the tides of business. The thing which my lord Coke said was good and too little, but at this time it was too much; but that is past. Howsoever, if they should go back and seek again to entertain your Majesty with new orders or offers, as is said to be intended, your Majesty hath ready two answers of repulse, if it please your Majesty to use them.

The one, that this is now the fourth time that they have mainly broken with your Majesty, and contradicted themselves. First, they undertook to dye and dress all the cloths of the realm; soon after, they wound themselves into the trade of whites, and came down to the proportion contracted. Secondly, they ought to have performed that contract according to their subscription *pro rata*, without any of these orders and impositions; soon after, they deserted their subscription, and had recourse to these devices of orders. Thirdly, if by order, and not by subscription, yet their orders should have laid it upon the whites; which is an unlawful and prohibited trade; nevertheless they would have brought in lawful and settled trades, full manufactures, merchandise of all natures, poll-money or brotherhood-money, and I cannot tell what. And now lastly, it seemeth, they would go back to lay it upon the whites; and therefore whether your Majesty will any more rest and build this great wheel of your kingdom upon these broken and brittle pins, and try experiments farther upon the health and body of your state, I leave to your princely judgment.

The other answer of repulse is a kind of apposing them what they will do after the three years contracted for; which is a point hitherto not much stirred, though Sir Lionel Cranfield hath ever beaten upon it in his speech with me; for after the three years they are not tied otherways than as trade shall give encouragement, of which encouragement your Majesty hath a bitter taste: and if they should hold on according to the third year's proportion, and not rise on by farther gradation, your Majesty hath not your end. No, I fear, and have long feared, that this feeding of the foreigner may be dangerous; for as we may think to hold up our clothing by vent of whites, till we can dye and dress; so they, I mean the Dutch, will think to hold up their manufacture of dyeing and dressing upon our whites, till they can clothe: so as your Majesty hath the greatest reason in the world to make the new company to come in and strengthen that part of their contract; and they refusing, as it is confidently believed they will, to make their default more visible to all men.

For the second main part of your Majesty's consultation, that is, what shall be done supposing an absolute breach, I have had some speech with Mr. Secretary Lake, and likewise with Sir Lionel Cranfield; and, as I conceive, there may be three ways taken into consideration: the first is, that the old company be restored, who, no doubt, are in appetite, and, as I find by Sir Lionel Cranfield, not unprepared; and that the licences, the one, that of 30,000 cloths, which was the old licence; the other that of my lord Cumberland's, which is without stint, my lord of Cumberland receiving satisfaction, be compounded into one entire licence without stint; and then, that they amongst themselves take order for that profit which hath been offered to your Majesty. This is a plain and known way, wherein your Majesty is not an actor; only it hath this, that the work of dyeing and dressing cloths, which hath been so much glorified, seemeth to be wholly relinquished, if you leave there. The second is, that there be a free trade of cloth, with this difference, that the dyed and dressed pay no custom, and the whites double custom, it being a merchandise prohibited and only licentiate. This continueth in life and fame the work desired, and will have a popular applause: but, I do confess, I did ever think that trading in companies is most agreeable to the English nature, which wanteth that same general vein of a republic which runneth in the Dutch, and serveth to them instead of a company; and therefore I dare not advise to adventure this great trade of the kingdom, which hath been so long under government, in a free or loose trade. The third is a compound way of both, which is, to go on with the trade of whites by the old company restored; and that your Majesty's profit be raised by order amongst themselves, rather than by double custom, wherein you must be the actor; and that nevertheless there be added a privilege to the same company to carry out cloths dyed, and dressed, custom-free; which will still continue as a glorious beam of your Majesty's royal design. I hope and wish at least, that this which I have written may be of some use to your Majesty, to settle, by the advice of the lords about you, this great business: at the least it is the effect of my care and poor ability, which, if in me be any, it is given me to no other end but faithfully to serve your Majesty. God ever preserve you.

Your Majesty's most humble subject and bounden servant,

Feb. 25, 1615. FR. BACON.

CXXXIII. TO SIR GEORGE VILLIERS.*

SIR,

I HUMBLY pray you not to think me over-hasty or much in appetite, if I put you in remembrance of my motion of strengthening me with the oath and trust of a privy counsellor; not for mine own strength, for as to that, I thank God, I am armed within, but for the strength of my service. The times I submit to you, who knoweth them best. But sure I am, there were never times which did more require a king's attorney to be well armed, and, as I said once to you, to wear a gauntlet and not a glove: the arraignments, when they proceed; the contention between the chancery and king's bench; the great cause of the *rege inconsulto*, which is so precious to the king's prerogative; divers

* Rawley's Resuscitatio.

other services that concern the king's revenue and the repair of his estate. Besides, it pleaseth his Majesty to accept well of my relations touching his business, which may seem a kind of interloping, as the merchants call it, for one that is no counsellor. But I leave all unto you, thinking myself infinitely bounden unto you for your great favours, the beams whereof I see plainly reflect upon me even from others; so that now I have no greater ambition than this, that as the king showeth himself to you the best master, so I might be found your best servant. In which wish and vow I shall ever rest,

Most devoted and affectionate to obey your commands,

FR. BACON.

Feb. 27, 1615.

CXXXIV. TO HIS MAJESTY, ABOUT THE EARL OF SOMERSET.*

IT MAY PLEASE YOUR MOST EXCELLENT MAJESTY,

AT my last access to your Majesty, it was fit for me to consider the time and your journey, which maketh me now trouble your Majesty with a remnant of that I thought then to have said; besides your old warrant and commission to me, to advertise your Majesty when you are *aux champs*, of any thing that concerned your service and my place. I know your Majesty is *nunquam minus solus, quam cum solus;* and I confess, in regard of your great judgment, under which nothing ought to be presented but well weighed, I could almost wish that the manner of Tiberius were in use again, of whom Tacitus saith, "Mos erat quamvis præsentem scripto adire;" much more in absence. I said to your Majesty that which I do now repeat, that the evidence upon which my lord of Somerset standeth indicted is of a good strong thread, considering impoisoning is the darkest of offences; but that the thread must be well spun and woven together; for, your Majesty knoweth, it is one thing to deal with a jury of Middlesex and Londoners, and another to deal with the peers: whose objects perhaps will not be so much what is before them in the present case, which I think is as odious to them as to the vulgar, but what may be hereafter. Besides, there be two disadvantages, we that shall give in evidence shall meet with, somewhat considerable; the one, that the same things often opened lose their freshness, except there be an aspersion of somewhat that is new, the other is the expectation raised, which makes things seem less than they are, because they are less than opinion. Therefore I were not your attorney, nor myself, if I should not be very careful, that in this last part, which is the pinnacle of your former justice, all things may pass *sine offendiculo, sine scrupulo.* Hereupon I did move two things, which having now more fully explained myself, I do in all humbleness renew. First, that your Majesty will be careful to choose a steward of judgment that may be able to moderate the evidence and cut off digressions; for I may interrupt, but I cannot silence: the other, that there may be special care taken for the ordering the evidence, not only for the knitting, but for the list, and to use your Majesty's own words, the confining of it. This to do, if your Majesty vouchsafe to direct it yourself, that is the best; if not, I humbly pray you to require my lord chancellor, that he, together with my lord chief justice, will confer with myself and my fellows, that shall be used for the marshalling and bounding of the evidence, that we may have the help of his opinion, as well as that of my lord chief justice; whose great travels as I much commend, yet that same *plerophoria*, or over-confidence, doth always subject things to a great deal of chance.

There is another business proper for me to crave of your Majesty at this time, as one that have in my eye a great deal of service to be done concerning your casual revenue; but considering times and persons, I desire to be strengthened by some such form of commandment under your royal hand, as I send you here enclosed. I most humbly pray your Majesty to think, I understand myself right well in this which I desire, and that it tendeth greatly to the good of your service. The warrant I mean not to impart, but upon just occasion; thus thirsty to hear of your Majesty's good health, I rest——

22 Jan. 1615.

* Stephens's First Collection, p. 105.

CXXXV. TO HIS MAJESTY, ABOUT THE CHANCELLOR'S PLACE.†

IT MAY PLEASE YOUR MOST EXCELLENT MAJESTY,

THE last day when it pleased your Majesty to express yourself towards me far above that I can deserve or could expect, I was surprised by the prince's coming in: I most humbly pray your Majesty, therefore, to accept these few lines of acknowledgment. I never had great thoughts for myself, farther than to maintain those great thoughts, which, I confess, I have for your service. I know what honour is, and I know what the times are; but, I thank God, with me my service is the principal; and it is far from me, under honourable pretences to cover base desires; which I account them to be, when men refer too much to themselves, especially serving such a king. I am afraid of nothing but that the master of the horse, your excellent servant, and I shall fall out, who shall hold your stirrup best. But were your Majesty mounted and seated without difficulties and distastes in your business, as I desire and hope to see you; I should *ex animo* desire to spend the decline of my years in my studies: wherein also I should not forget to do him honour, who, besides his active and politic virtues, is the best pen of kings, and much more, the best subject of a pen. God ever preserve your Majesty.

Your Majesty's most humble subject, and more and more obliged servant,

FR. BACON.

April 1, 1616.

† Rawley's Resuscitatio.

CXXXVI. TO SIR GEORGE VILLIERS, ABOUT THE EARL OF SOMERSET.*

Sir,

I thought it convenient to give his Majesty an account of that which his Majesty gave me in charge in general, reserving the particulars for his coming; and I find it necessary to know his pleasure in some things ere I could farther proceed.

My lord chancellor and myself spent Thursday and yesterday, the whole forenoons of both days, in the examination of Sir Robert Cotton; whom we find hitherto but empty, save only in the great point of the treaty with Spain.

This examination was taken before his Majesty's warrant came to Mr. Vice-Chamberlain, for communicating unto us the secrets of the pensions; which warrant I received yesterday morning, being Friday, and a meeting was appointed at my lord chancellor's in the evening after council; upon which conference we find matter of farther examination for Sir Robert Cotton, of some new articles whereupon to examine Somerset, and of entering into examination of Sir William Mounson.

Wherefore, first for Somerset, being now ready to proceed to examine him, we stay only upon the duke of Lenox, who it seemeth is fallen sick and keepeth in; without whom, we neither think it warranted by his Majesty's direction, nor agreeable to his intention, that we should proceed; for that will want, which should sweeten the cup of medicine, he being his countryman and friend. Herein then we humbly crave his Majesty's direction with all convenient speed, whether we shall expect the duke's recovery, or proceed by ourselves; or that his Majesty will think of some other person, qualified according to his Majesty's just intention, to be joined with us. I remember we had speech with his Majesty of my lord Hay; and I, for my part, can think of no other, except it should be my lord chancellor of Scotland, for my lord Binning may be thought too near allied.

I am farther to know his Majesty's pleasure concerning the day; for my lord chancellor and I conceived his Majesty to have designed the Monday and Tuesday after St. George's feast; and nevertheless we conceived also, that his Majesty understood that the examinations of Somerset about this, and otherwise touching the Spanish practices, should first be put to a point; which will not be possible, as time cometh on, by reason of this accident of the duke's sickness, and the cause we find of Sir William Mounson's examination, and that divers of the peers are to be sent for from remote places.

It may please his Majesty therefore to take into consideration, whether the days may not well be put off till Wednesday and Thursday after the term, which endeth on the Monday, being the Wednesday and Thursday before Whitsuntide; or, if that please not his Majesty, in respect, it may be, his Majesty will be then in town, whereas these arraignments have been still in his Majesty's absence from town, then to take Monday and Tuesday after Trinity Sunday, being the Monday and Tuesday before Trinity term.

Now for Sir William Mounson, if it be his Majesty's pleasure that my lord chancellor and I shall proceed to the examination of him, for that of the duke of Lenox differs, in that there is not the like cause as in that of Somerset, then his Majesty may be pleased to direct his commandment and warrant to my lord chief justice, to deliver unto me the examination he took of Sir William Mounson, that those, joined to the information which we have received from Mr. Vice-Chamberlain, may be full instructions unto us for his examination. Farther, I pray let his Majesty know, that on Thursday in the evening my lord chief justice and myself attended my lord chancellor at his house for the settling that scruple which his Majesty most justly conceived in the examination of the lady Somerset; at which time, resting on his Majesty's opinion, that that evidence, as it standeth now unclcared, must "secundum leges sanæ conscientiæ" be laid aside; the question was, whether we should leave it out, or try what a re-examination of my lady Somerset would produce? Whereupon we agreed upon a re-examination of my lady Somerset, which my lord chief justice and I have appointed for Monday morning. I was bold at that meeting to put my lord chief justice a posing question; which was, Whether that opinion which his brethren had given upon the whole evidence, and he had reported to his Majesty, namely, that it was good evidence, in their opinions, to convict my lord of Somerset, was not grounded upon this part of the evidence now to be omitted, as well as upon the rest; who answered positively, No; and they never saw the exposition of the letter, but the letter only.

The same Thursday evening, before we entered into this last matter, and in the presence of Mr. Secretary Winwood, who left us when we went to the former business, we had conference concerning the frauds and abusive grants passed to the prejudice of his Majesty's state of revenue; where my lord chief justice made some relation of his collections which he had made of that kind; of which I will only say this, that I heard nothing that was new to me, and I found my lord chancellor, in divers particulars, more ready than I found him. We grew to a distribution both of times and of matters, for we agreed what to begin with presently, and what should follow, and also we had consideration what was to be holpen by law, what by equity, and what by parliament; wherein I must confess, that in the last of these, of which my lord chief justice made most account, I make most doubt. But the conclusion was, that upon this entrance I should advise and confer at large with my lord chief justice, and set things in work. The particulars I refer till his Majesty's coming.

The learned counsel have now attended me twice at my chamber, to confer upon that which his Majesty gave us in commandment for our opinion upon the case set down by my lord chancellor, whether the statutes extend to it or no; wherein we are

* Stephens's First Collection, p. 108.

more and more edified and confirmed that they do not, and shall shortly send our report to his Majesty.

Sir, I hope you will bear me witness I have not been idle; but all is nothing to the duty I owe his Majesty for his singular favours past and present; supplying all with love and prayers, I rest,

Your true friend and devoted servant,

FR. BACON.

April 13, 1616.

CXXXVII. TO SIR GEORGE VILLIERS, ABOUT THE EARL OF SOMERSET.*

Sir,

I received from you a letter of very brief and clear directions; and I think it a great blessing of God upon me and my labours, that my directions come by so clear a conduit, as they receive no tincture in the passage.

Yesterday my lord chancellor, the duke of Lenox, and myself, spent the whole afternoon at the Tower, in the examination of Somerset, upon the articles sent from his Majesty, and some other additionals, which were in effect contained in the former, but extended to more particularity, by occasion of somewhat discovered by Cotton's examination and Mr. Vice-Chamberlain's information.

He is full of protestations, and would fain keep that quarter towards Spain clear: using but this for argument, that he had such fortunes from his Majesty, as he could not think of bettering his conditions from Spain, because, as he said, he was no military man. He cometh nothing so far on, for that which concerneth the treaty, as Cotton, which doth much aggravate suspicion against him: the farther particulars I reserve to his Majesty's coming.

In the end, *tamquam obiter*, but very effectually, my lord chancellor put him in mind of the state he stood in for the impoisonment; but he was little moved with it, and pretended carelessness of life, since ignominy had made him unfit for his Majesty's service. I am of opinion that the fair usage of him, as it was fit for the Spanish examinations, and for the questions touching the papers and despatches, and all that, so it was no good preparative to make him descend into himself touching his present danger; and therefore my lord chancellor and myself thought not good to insist upon it at this time.

I have received from my lord chief justice the examination of Sir William Mounson; with whom we mean to proceed to farther examination with all speed.

My lord chief justice is altered touching the re-examination of the lady, and desired me that we might stay till he spake with his Majesty, saying it could be no casting back to the business; which I did approve.

Myself with the rest of my fellows, upon due and mature advice, perfected our report touching the chancery; for the receiving whereof, I pray you put his Majesty in mind at his coming, to appoint some time for us to wait upon him all together, for the delivery in of the same, as we did in our former certificate.

For the revenue matters, I reserve them to his Majesty's coming; and in the mean time I doubt not but Mr. Secretary Winwood will make some kind of report thereof to his Majesty.

For the conclusion of your letter concerning my own comfort, I can but say the Psalm of "Quid retribuam?" God that giveth me favour in his Majesty's eyes, will strengthen me in his Majesty's service. I ever rest

Your true and devoted servant,

FR. BACON.

April 18, 1616.

To requite your postscript of excuse for scribbling, I pray you excuse that the paper is not gilt, I writing from Westminster-Hall, where we are not so fine.

CXXXVIII. A LETTER TO THE KING, WITH HIS MAJESTY'S OBSERVATIONS UPON IT.†

It may please your most excellent Majesty,

Your Majesty hath put me upon a work of providence in this great cause, which is to break and distinguish future events into present cases; and so to present them to your royal judgment, that, in this action, which hath been carried with so great prudence, justice, and clemency, there may be, for that which remaineth, as little surprise as is possible; but that things duly foreseen may have their remedies and directions in readiness; wherein I cannot forget what the poet Martial saith; "O quantum est subitis casibus ingenium!" signifying, that accident is many times more subtle than foresight, and overreacheth expectation; and besides, I know very well the meanness of my own judgment, in comprehending or foreeasting what may follow.

It was your Majesty's pleasure also that I should couple the suppositions with my opinion in every of them, which is a harder task; but yet your Majesty's commandment requireth my obedience, and your trust giveth me assurance.

I will put the case, which I wish; that Somerset should make a clear confession of his offences, before he be produced to trial.

In this case it seemeth your Majesty will have a new consult; the points whereof will be, 1. Whether your Majesty will stay the trial, and so save them both from the stage, and that public ignominy. 2. Or whether you will, or may fitly by law, have the trial proceed, and stay or reprieve the judgment, which saveth the lands from forfeiture, and the blood from corruption. 3. Or whether you will have both trial and judgment proceed, and save the blood only, not from corrupting, but from spilling.‡

* Stephens's First Collection, p. 112. † Ibid. 114.

‡ REX. I say with Apollo, "Medio tutius itur," if it may stand with law; and if it cannot, when I shall hear that he confesseth, I am then to make choice of the first or the last.

These be the depths of your Majesty's mercy which I may not enter into: but for honour and reputation they have these grounds:

That the blood of Overbury is already revenged by divers executions.

That confession and penitency are the footstools of mercy; adding this circumstance likewise, that the former offenders did none of them make a clear confession.

That the great downfal of so great persons carrieth in itself a heavy judgment, and a kind of civil death, although their lives should not be taken.

All which may satisfy honour for sparing their lives. But if your Majesty's mercy should extend to the first degree, which is the highest, of sparing the stage and the trial; then three things are to be considered:

First, That they make such a submission or deprecation, as they prostrate themselves, and all that they have, at your Majesty's feet, imploring your mercy.*

Secondly, That your Majesty, in your own wisdom, do advise what course you will take, for the utter extinguishing of all hopes of resuscitating of their fortunes and favour; whereof if there should be the least conceit, it will leave in men a great deal of envy and discontent.

And lastly; whether your Majesty will not suffer it to be thought abroad, that there is cause of farther examination of Somerset, concerning matters of estate, after he shall begin once to be a confessant, and so make as well a politic ground, as a ground of clemency, for farther stay.

And for the second degree, of proceeding to trial, and staying judgment, I must better inform myself by precedents, and advise with my lord chancellor.

The second case is, if that fall out which is likest, as things stand, and which we expect, which is, that the lady confess; and that Somerset himself plead not guilty, and be found guilty:†

In this case, first, I suppose your Majesty will not think of any stay of judgment, but that the public process of justice pass on.

Secondly, For your mercy to be extended to both for pardon of their execution, I have partly touched in the considerations applied to the former case; whereunto may be added, that as there is ground of mercy for her, upon her penitency and free confession, and will be much more upon his finding guilty; because the malice on his part will be thought the deeper source of the offence; so there will be ground for mercy on his part, upon the nature of the proof; and because it rests chiefly upon presumptions. For certainly there may be an evidence so balanced, as it may have sufficient matter for the conscience of the peers to convict him, and yet leave sufficient matter in the conscience of a king upon the same evidence to pardon his life; because the peers are astringed by necessity either to acquit or condemn; but grace is free: and for my part, I think the evidence in this present case will be of such a nature.

Thirdly, it shall be my care so to moderate the manner of charging him, as it might make him not odious beyond the extent of mercy.

Lastly, All these points of mercy and favour are to be understood with this limitation, if he do not by his contemptuous and insolent carriage at the bar, make himself incapable and unworthy of them.‡

The third case is, if he should stand mute and will not plead, whereof, your Majesty knoweth, there hath been some secret question.

In this case I should think fit, that, as in public, both myself, and chiefly my lord chancellor, sitting then as lord steward of England, should dehort and deter him from that desperation; so nevertheless, that as much should be done for him, as was done for Weston; which was to adjourn the court for some days, upon a christian ground, that he may have time to turn from that mind of destroying himself; during which time your Majesty's farther pleasure may be known.§

The fourth case is that which I should be very sorry it should happen, but it is a future contingent; that is, if the peers should acquit him and find him not guilty.

In this case the lord steward must be provided what to do. For as it hath never been seen, as I conceive it, that there should be any rejecting of the verdict, or any respiting of the judgment of the acquittal; so on the other side this case requireth, that because there be many high and heinous offences, though not capital, for which he may be questioned in the star-chamber, or otherwise, that there be some touch of that in general at the conclusion, by my lord steward of England; and that therefore he be remanded to the Tower as close prisoner.‖

For the matter of examination, or other proceedings, my lord chancellor with my advice hath set down,

To-morrow, being Monday, for the re-examination of the lady:

Wednesday next, for the meeting of the judges concerning the evidence:

Thursday, for the examination of Somerset himself, according to your Majesty's instructions:

Which three parts, when they shall be performed, I will give your Majesty advertisement with speed, and in the mean time be glad to receive from your Majesty, whom it is my part to inform truly, such directions or significations of your pleasure as this advertisement may induce, and that with speed, because the time cometh on. Well remembering who is the person whom your Majesty admitted to this secret, I have sent this letter open unto him, that he may take your Majesty's times to report it, or show it unto you; assuring myself that nothing is

* REX. This article cannot be mended in point thereof.

† REX. If stay of judgment can stand with the law, I could even wish it in this case: in all the rest this article cannot be mended.

‡ REX. That danger is well to be foreseen, lest he upon the one part commit unpardonable errors, and I on the other part seem to punish him in the spirit of revenge.

§ REX. This article cannot be mended.

‖ REX. This is so also.

more firm than his trust, tied to your Majesty's commandments.

Your Majesty's most humble and most bounden subject and servant,

FR. BACON.

April 28, 1616.

CXXXIX. TO SIR GEORGE VILLIERS, ABOUT THE EARL OF SOMERSET.*

SIR,

I HAVE received my letter from his Majesty with his marginal notes, which shall be my directions, being glad to perceive I understand his Majesty so well. That same little charm, which may be secretly infused into Somerset's ear some few hours before his trial, was excellently well thought of by his Majesty; and I do approve it both for matter and time; only if it seem good to his Majesty I would wish it a little enlarged: for if it be no more than to spare his blood, he hath a kind of proud humour which may overwork the medicine. Therefore I could wish it were made a little stronger, by giving him some hopes that his Majesty will be good to his lady and child; and that time, when justice and his Majesty's honour is once saved and satisfied, may produce farther fruit of his Majesty's compassion: which was to be seen in the example of Southampton, whom his Majesty after attainder restored; and Cobham and Gray, to whom his Majesty, notwithstanding they were offenders against his own person, yet he spared their lives; and for Gray, his Majesty gave him back some part of his estate, and was upon point to deliver him much more. He having been so highly in his Majesty's favour, may hope well, if he hurt not himself by his public misdemeanor.

For the person that should deliver this message, I am not so well seen in the region of his friends, as to be able to make choice of a particular; my lord treasurer, the lord Knollys, or any of his nearest friends, should not be trusted with it, for they may go too far, and perhaps work contrary to his Majesty's ends. Those which occur to me, are my lord Hay, my lord Burleigh, of England I mean, and Sir Robert Carre.

My lady Somerset hath been re-examined, and his Majesty is found both a true prophet and a most just king in that scruple he made; for now she expoundeth the word He, that should send the tarts to Elwys's wife, to be of Overbury, and not of Somerset; but for the person that should bid her, she said it was Northampton or Weston, not pitching upon certainty, which giveth some advantage to the evidence.

Yesterday being Wednesday, I spent four or five hours with the judges whom his Majesty designed to take consideration with, the four judges of the king's bench, of the evidence against Somerset: they all concur in opinion, that the questioning and drawing him on to trial is most honourable and just, and that the evidence is fair and good.

His Majesty's letter to the judges concerning the *Commendams* was full of magnanimity and wisdom. I perceive his Majesty is never less alone, than when he is alone; for I am sure there was nobody by him to inform him, which made me admire it the more.

The judges have given a day over, till the second Saturday of the next term: so as that matter may endure farther consideration, for his Majesty not only not to lose ground, but to win ground.

To-morrow is appointed for the examination of Somerset, which by some infirmity of the duke of Lenox was put off from this day. When this is done, I will write more fully, ever resting

Your true and devoted servant,

FR. BACON.

May 2, 1616.

CXL. TO SIR GEORGE VILLIERS, OF SOMERSET'S ARRAIGNMENT.†

SIR,

I AM far enough from opinion, that the redintegration or resuscitation of Somerset's fortune can ever stand with his Majesty's honour and safety; and therein I think I expressed myself fully to his Majesty in one of my former letters; and I know well any expectation or thought abroad will do much hurt. But yet the glimmering of that which the king hath done to others, by way of talk to him, cannot hurt, as I conceive; but I would not have that part of the message as from the king, but added by the messenger as from himself. This I remit to his Majesty's princely judgment.

For the person, though he trust the lieutenant well, yet it must be some new man; for in these cases, that which is ordinary worketh not so great impressions as that which is new and extraordinary.

The time I wish to be the Tuesday, being the even of his lady's arraignment: for, as his Majesty first conceived, I would not have it stay in his stomach too long, lest it sour in the digestion; and to be too near the time, may be thought but to tune him for that day.

I send here withal the substance of that which I purpose to say nakedly, and only in that part which is of tenderness; for that I conceive was his Majesty's meaning.

It will be necessary, because I have distributed parts to the two sergeants, as that paper doth express, and they understand nothing of his Majesty's pleasure of the manner of carrying the evidence more than they may guess by observation of my example, which they may ascribe as much to my nature as to direction; therefore that his Majesty would be pleased to write some few words to us all, signed with his own hand, that, the matter itself being tragical enough, bitterness and insulting be forborne; and that we remember our part to be to make him delinquent to the peers, and not odious to the people. That part of the evidence of the lady's exposition of the pronoun, he, which was first

* Stephens's First Collection, p. 120.

† Stephens's First Collection, p. 122.

caught hold of by me, and afterwards by his Majesty's singular wisdom and conscience excepted to, and now is by her re-examination retracted, I have given order to sergeant Montague, within whose part it falleth, to leave it out of the evidence. I do yet crave pardon, if I do not certify touching the point of law for respiting the judgment, for I have not fully advised with my lord chancellor concerning it, but I will advertise it in time.

I send his Majesty the lord steward's commission in two several instruments, the one to remain with my lord chancellor, which is that which is written in secretary-hand for his warrant, and is to pass the signet; the other, that wherennto the great seal is to be affixed, which is in chancery-hand: his Majesty is to sign them both, and to transmit the former to the signet, if the secretaries either of them be there; and both of them are to be returned to me with all speed. I ever rest,

Your true and devoted servant,

FR. BACON.

May 5, 1616.

CXLI. TO THE KING, ABOUT SOMERSET'S EXAMINATION.*

It may please your Majesty,

We have done our best endeavours to perform your Majesty's commission, both in matter and manner, for the examination of my lord of Somerset; wherein that which passed, for the general, was to this effect; That he was to know his own case, for that his day of trial could not be far off; but that this day's work was that which would conduce to your Majesty's justice little or nothing, but to your mercy much, if he did lay hold upon it; and therefore might do him good, but could do him no hurt. For as for your justice, there had been taken great and grave opinion, not only of such judges as he may think violent, but of the most sad and most temperate of the kingdom, who ought to understand the state of the proofs, that the evidence was full to convict him, so as there needeth neither confession, nor supply of examination. But for your Majesty's mercy, although he were not to expect we should make any promise, we did assure him, that your Majesty was compassionate of him if he gave you some ground whereon to work; that as long as he stood upon his innocency and trial, your Majesty was tied in honour to proceed according to justice; and that he little understood, being a close prisoner, how much the expectation of the world, besides your love to justice itself, engaged your Majesty, whatsoever your inclinations were: but nevertheless that a frank and clear confession might open the gate of mercy, and help to satisfy the point of honour.

That his lady, as he knew, and that after many oaths and imprecations to the contrary, had nevertheless in the end, being touched with remorse, confessed; that she that led him to offend, might lead him likewise to repent of his offence: that the confession of one of them could not fitly do either of them much good, but the confession of both of them might work some farther effect towards both: and therefore, in conclusion, we wished him not to shut the gate of your Majesty's mercy against himself, by being obdurate any longer. This was the effect of that which was spoken, part by one of us, part by another, as it fell out; adding farther, that he might well discern who spake in us in the course we held; for that commissioners for examination might not presume so far of themselves.

Not to trouble your Majesty with circumstances of his answers, the sequel was no other, but that we found him still not to come any degree farther on to confess; only his behaviour was very sober, and modest, and mild, differing apparently from other times, but yet, as it seemed, resolved to have his trial.

Then did we proceed to examine him upon divers questions touching the impoisonment, which indeed were very material and supplemental to the former evidence; wherein either his affirmatives gave some light, or his negatives do greatly falsify him in that which is apparently proved.

We made this farther observation; that when we asked him some question that did touch the prince or some foreign practice, which we did very sparingly at this time, yet he grew a little stirred, but in the questions of the impoisonment very cold and modest. Thus not thinking it necessary to trouble your Majesty with any farther particulars, we end with prayer to God ever to preserve your Majesty.

Your Majesty's most loyal and faithful servant,

FR. BACON.

Postscript. If it seem good unto your Majesty, we think it not amiss some preacher, well chosen, had access to my lord of Somerset for his preparing and comfort, although it be before his trial.

* Stephens's First Collection, p. 124.

CXLII. AN EXPOSTULATION TO THE LORD CHIEF JUSTICE COKE.†

My very good lord,

Though it be true, that "he who considereth the wind and the rain, shall neither sow nor reap;" yet "there is a season for every action," and so "there is a time to speak, and a time to keep silence." ‡ There is a time when the words of a poor simple man may profit; and that poor man in "The Preacher," which delivered the city by his wisdom, found that without this opportunity the owner both of wisdom and eloquence lose but their labour, and cannot charm the deaf adder. God therefore, before his Son that bringeth mercy, sent his servant the trumpeter of repentance to level every high hill, to prepare the way before him, making it smooth and straight: and as it is in spiritual things, where Christ never comes before his way-maker hath laid even the heart with sorrow and repentance,

† Ibid. p 126. ‡ Eccles. xi. 4.

since self-conceited and proud persons think themselves too good and too wise to learn of their inferiors, and therefore need not the physician; so in the rules of earthly wisdom, it is not possible for nature to attain any mediocrity of perfection, before she be humbled by knowing herself and her own ignorance. Not only knowledge, but also every other gift, which we call the gifts of fortune, have power to puff up earth: afflictions only level these mole-hills of pride, plough the heart, and make it fit for wisdom to sow her seed, and for grace to bring forth her increase. Happy is that man therefore, both in regard of heaveoly and earthly wisdom, that is thos wounded to be cured, thus broken to be made straight; thus made acquainted with his own imperfections that he may be perfected.

Supposing this to be the time of your affliction, that which I have propouoded to myself is, by taking this seasonable advantage, like a true friend, thongh far unworthy to be counted so, to show you your true shape in a glass; and that not in a false one to flatter you, nor yet in one that should make you seem worse than you are, and so offend you; hut in one made by the reflection of your own words and actions; from whose light proceeds the voice of the people, which is often not unfitly called the voice of God. But therein, since I have purposed a truth, I must entreat liberty to be plain, a liherty, that at this time I know not whether or no I may use safely, I am sure at other times I could not; yet of this resolve yonrself, it proceedeth from love and a true desire to do you good; that you knowing the general opinion, may not altogether neglect or contemn it, but mend what you find amiss in yourself, and retain what your jodgment shall approve; for to this end shall truth be delivered as naked as if yourself were to be anatomized by the hand of opinion. All men can see their own profit, that part of the wallet hangs before. A true friend (whose worthy office I would perform, since I fear both yourself and all great men want such, being themselves true friends to few or none) is first to show the other, and which is from your eyes.

First therefore behold yonr errors. In disconrse you delight to speak too much, not to hear other men; this, some say, becomes a pleader, not a judge; for by this sometimes your affections are entangled with a love of your own arguments, though they be the weaker; and rejecting of those, which, when your affections were settled, your own judgment would allow for strongest. Thus while you speak in your own element, the law, no man ordinarily equals you; but when you wander, as you often delight to do, you wander indeed, and give never such satisfaction as the curious time reqnires. This is not caused by any natural defect, but first for want of election, when you, having a large and fruitful mind, should not so much labour what to speak, as to find what to leave unspoken: rich soils are often to be weeded.

Secondly, You cloy your auditory when you would be observed; speech must be either sweet or short.

Thirdly, yon converse with books, not men, and books especially hnman; and have no excellent choice with men, who are the best books: for a man of action and employment you seldom converse with, and then but with your underlings; not freely, but as a schoolmaster with his scholars, ever to teach, never to learn; but if sometimes you would in your familiar discourse hear others, and make election of such as know what they speak, yoo should know many of these tales you tell to be but ordinary; and many other things, which you delight to repeat and serve in for novelties, to be but stale. As in your pleadings you were wont to iosult over misery, and to inveigh bitterly at the persons, which bred you many enemies, whose poison yet swelleth, and the effects now appear, so are you still wont to be a little careless, in this point, to praise or disgrace upon slight gronnds, and that sometimes untruly; so that your reproofs or commendations are for the most part neglected and contemned; when the censure of a judge, coming slow but sure, should be a brand to the guilty, and a crown to the virtuous. You will jest at any man in pnblic, without respect of the person's dignity or your own: this disgraceth your gravity, more than it can advance the opinion of your wit; and so do all actions which we see you do directly with a touch of vain-glory, having no respect to the true end. You make the law to lean too much to your opinion, whereby yoo show yourself to be a legal tyrant, striking with that weapon where you please, since you are able to turn the edge any way: for thus the wise master of the law gives warning to young students, that they shonld be wary, lest, while they hope to be instructed by your integrity and knowledge, they should be deceived with your skill armed with authority. Your too much love of the world is too much seen, when having the living of a thousand,* you relieve few or none: the hand that has taken so much, can it give so little? Herein you show no howels of compassion, as if you thonght all too little for yourself; or that God hath given you all that you have, if yon think wealth to be his gift, I mean that you get well, for I know sure the rest is not, only to that end yon should still gather more, and never be satisfied; but try how much you would gather, to account for all at the great and general audit-day. We desire you to amend this, and let your poor tenants in Norfolk find some comfort; where nothing of your estate is spent towards their relief, but all brought up hither, to the impoverishing of your country.

In your last, which might have been your best piece of service to the state, affectioned to follow that old rule, which giveth justice leaden heels and iron hands, you used too many delays till the delinquents' hands were loosed, and yours bound: in that work you seemed another Fabius, where the humour of Marcellus would have done better: what need you have sought more evidences than enough? while you pretended the finding out of more, missing your aim, you discredited what you had fonnd. This best jndgments think; though you never used such speeches as are fathered upon you, yet you might well have done it, and but rightly; for this

* 10,000*l.* *Cab.*

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crime was second to none, but the powder-plot: that would have blown up all at one blow, a merciful cruelty; this would have done the same by degrees, a lingering but a sure way; one might by one be called out, till all opposers had been removed.

Besides, that other plot was scandalous to Rome, making popery odious in the sight of the whole world: this hath been scandalous to the truth of the whole gospel; and since the first nullity to this instant, when justice hath her hands bound, the devil could not have invented a more mischievous practice to our state and church than this hath been, is, and is like to be. God avert the evil.

But herein you committed another fault: that as you were too open in your proceedings, and so taught them thereby to defend themselves; so you gave them time to undermine justice, and to work upon all advantages both of affections, and honour, and opportunity, and breach of friendship; which they have so well followed, sparing neither pains nor costs, that it almost seemeth a higher offence in you to have done so much indeed, than that you have done no more: you stopt the confessions and accusations of some, who perhaps, had they been suffered, would have spoken enough to have removed some stumbling-blocks out of your way; and that you did not this in the favour of any one, but of I know not what present unadvised humours, supposing enough behind to discover all; which fell not out so. Howsoever, as the apostle saith in another case, "you went not rightly to the truth;" and therefore, though you were to be commended for what you did, yet you were to be reprehended for many circumstances in the doing; and doubtless God hath an eye in this cross to your negligence, and the briers are left to be pricks in your sides and thorns in your eyes. But that which we commend you for, are those excellent parts in nature, and knowledge in the law, which you are endowed withal; but these are only good in their good use. Wherefore we thank you heartily for standing stoutly in the commonwealth's behalf; hoping it proceedeth not from a disposition to oppose greatness, as your enemies say, but to do justice, and deliver truth indifferently without respect of persons; and in this we pray for your prosperity, and are sorry that your good actions should not always succeed happily. But in the carriage of this you were faulty; for you took it in hand in an evil time, both in respect of the present business which was interrupted, and in regard of his present sickness whom it concerned whereby you disunited your strength, and made a gap for the enemies to pass out at, and to return and assault you.

But now since the case so standeth, we desire you to give way to power, and so to fight that you be not utterly broken, but reserved entirely to serve the commonwealth again, and to do what good you can, since you cannot do all the good you would; and since you are fallen upon this rock, cast out the goods to save the bottom; stop the leaks and make towards land; learn of the steward to make friends of the unrighteous mammon. Those Spaniards in Mexico who were chased of the Indians, tell us what to do with our goods in our extremity; they being to pass over a river in their flight, as many as cast away their gold swam over safe; but some more covetous, keeping their gold, were either drowned with it, or overtaken and slain by the savages: you have received, now learn to give. The beaver learns us this lesson, who being hunted for his stones, bites them off: you cannot but have much of your estate, pardon my plainness, ill got; think how much of that you never spake for, how much by speaking unjustly or in unjust causes. Account it then a blessing of God, if thus it may be laid out for your good, and not left for your heir, to hasten the wasting of much of the rest, perhaps of all: for so we see God oftentimes proceeds in judgment with many hasty gatherers: you have enough to spare, being well laid, to turn the tide, and fetch all things again. But if you escape, I suppose it worthy of an *If*, since you know the old use, that none called in question must go away uncensured, yet consider that accusations make wounds, and leave scars; and though you see the toil behind your back, yourself free, and the covert before, yet remember there are stands: trust not a reconciled enemy; but think the peace is but to secure you for farther advantage, or expect a second and a third encounter; the main battle, the wings are yet unbroken, they may charge you at an instant, or Death before them; walk therefore circumspectly, and if at length, by means of our endeavours and yours, you recover the favour that you have lost, give God the glory in action, not in words only; and remember us with sense of your past misfortune, whose estate hath, and may hereafter lie in the power of your breath.

There is a great mercy in despatch, delays are tortures, wherewith by degrees we are rent out of our estates;* do not you, if you be restored, as some others do, fly from the service of virtue to serve the time, as if they repented their goodness, or meant not to make a second hazard in God's house; but rather let this cross make you zealous in God's cause, sensible in ours, and more sensible in all; which express thus. You have been a great enemy to papists; if you love God be so still, but more indeed than heretofore: for much of your zeal was heretofore wasted in words: call to remembrance that they were the persons that prophesied of that cross of yours long before it happened; they saw the storm coming, being the principal contrivers and furtherers of the plot, the men that blew the coals, heat the iron, and made all things ready; they owe you a good turn, and will, if they can, pay it you; you see their hearts by their deeds, prove then your faith so to: the best good work you can do, is to do the best you can against them, that is, to see the law severely, justly, and diligently executed.

And now we beseech you, my lord, be sensible

* My lord Bacon observes elsewhere, that the Scripture saith, there be that turn judgment into wormwood; and saith he, surely there be "also that turn it into vinegar; for injustice maketh it bitter, and delays make it sour." Essay LVI. p. 304.

both of the stroke and hand that striketh; learn of David to leave Shimei, and call upon God: he hath some great work to do, and he preparеth you for it; he would neither have you faint, nor yet bear this cross with a stoical resolution: there is a christian mediocrity worthy of your greatness. I must be plain, perhaps rash; had some notes which you had taken at sermons been written in your heart to practise, this work had been done long ago without the envy of your enemies; but when we will not mind ourselves, God, if we belong to him, takes us in hand; and because he seeth that we have unbridled stomachs, therefore he sends outward crosses, which while they cause us to mourn, do comfort us, being assured testimonies of his love that sends them. To humble ourselves therefore before God is the part of a christian; but for the world and our enemies the counsel of the poet is apt,

"Tu ne cede malis, sed contra audentior ito."
Æneid. vi. 95.

The last part of this counsel you forget, yet none need be ashamed to make use of it, that so being armed against casualties, you may stand firm against the assaults on the right hand, and on the left. For this is certain, the mind that is most prone to be puffed up with prosperity, is most weak and apt to be dejected with the least puff of adversity. Indeed she is strong enough to make an able man stagger, striking terrible blows: but true christian wisdom gives us armour of proof against all assaults, and teacheth us in all estates to be content: for though she cause our truest friends to declare themselves our enemies; though she give heart then to the most cowardly to strike us; though an hour's continuance countervails an age of prosperity: though she cast in our dish all that ever we have done; yet hath she no power to hurt the humble and wise, but only to break such as too much prosperity hath made stiff in their own thoughts, but weak indeed; and fitted for renewing: when the wise rather gather from thence profit and wisdom; by the example of David, who said, "Before I was chastised I went astray." Now then he that knoweth the right way, will look better to his footing. Cardan saith, that weeping, fasting, and sighing, are the chief purges of grief; indeed naturally they do assuage sorrow: but God in this case is the only and best physician; the means he hath ordained are the advice of friends, the amendment of ourselves; for amendment is both physician and cure. For friends, although your lordship be scant, yet I hope you are not altogether destitute; if you be, do but look upon good books: they are true friends, that will neither flatter nor dissemble: be you but true to yourself, applying that which they teach unto the party grieved, and you shall need no other comfort nor counsel. To them and to God's holy Spirit, directing you in the reading of them, I commend your lordship; beseeching him to send you a good issue out of these troubles, and from henceforth to work a reformation in all that is amiss, and a resolute perseverance, proceeding, and growth in all that is good; and that for his glory, the bettering of yourself, this church and commonwealth; whose faithful servant whilst you remain,

I remain a faithful servant to you,

FR. BACON.

* Rawley's Resuscitatio.

CXLIII. TO SIR GEORGE VILLIERS.*

SIR,

THE time is, as I should think, now or never, for his Majesty to finish his good meaning towards me; if it please him to consider, what is past and what is to come.

If I would tender my profit, and oblige men unto me by my place and practice, I could have more profit than I could devise; and could oblige all the world, and offend none; which is a brave condition for a man's private. But my heart is not on these things. Yet on the other side I would be sorry that worthless persons should make a note that I get nothing but pains and enemies; and a little popular reputation, which followeth me whether I will or no. If any thing be to be done for yourself, I should take infinite contentment, that my honour might wait upon yours; but I would be loth it should wait upon any man's else. If you would put your strength to this business, it is done; and that done many things more will begin. God keep you ever. I rest,

Your true and devoted servant,

FR. BACON.

May 30, 1616.

CXLIV. TO THE KING, ABOUT THE COMMENDAMS.†

MAY IT PLEASE YOUR MOST EXCELLENT MAJESTY,

I AM not swift to deliver any thing to your Majesty before it be well weighed. But now that I have informed myself of as much as is necessary touching this proceeding of the judges to the argument of the Commendams, notwithstanding your Majesty's pleasure signified by me, upon your Majesty's commandment in presence of my lord chancellor and the bishop of Winchester, to the contrary, I do think it fit to advertise your Majesty what hath passed; the rather, because I suppose the judges, since they performed not your commandment, have at least given your Majesty their reasons of failing therein; I being to answer for the doing your Majesty's commandment, and they for the not doing.

I did conceive, that in a cause that concerned your Majesty and your royal power, the judges having heard your attorney-general argue the Saturday before, would of themselves have taken farther time to be advised.

And, if I fail not in memory, my lord Coke received from your Majesty's self, as I take it, a precedent commandment in Hilary term, that both in

† Stephens's First Collection, p. 137.

the *rege inconsulto*, and in the Commendams, your attorney should be heard to speak, and then stay to be made of farther proceedings, till my lord had spoken with your Majesty.

Nevertheless, hearing that the day appointed for the judges' argument held, contrary to my expectation, I sent on Thursday in the evening, having received your Majesty's commandment but the day before in the afternoon, a letter to my lord Coke; whereby I let him know, that upon some report of my lord of Winchester, who by your commandment was present at my argument of that which passed, it was your Majesty's express pleasure, that no farther proceedings should be, until you had conferred with your judges: which your Majesty thought to have done at your being now last in town; but by reason of your many and weighty occasions, your princely times would not serve; and that it was your pleasure he should signify so much to the rest of the judges, whereof his lordship might not fail. His answer by word to my man was, that it were good the rest of the judges understood so much from myself: whereupon I, that cannot skill of scruples in matter of service, did write on Friday three several letters of like content to the judges of the common pleas, and the barons of the exchequer, and the other three judges of the king's bench, mentioning in that last my particular letter to my lord chief justice.

This was all I did, and thought all had been sure; in so much as the same day being appointed in chancery for your Majesty's great cause, followed by lord Hunsden,* I writ two other letters to both the chief justices, to put them in mind of assisting my lord chancellor at the hearing. And when my lord chancellor himself took some notice upon that occasion openly in the chancery, that the Commendams could not hold presently after, I heard the judges were gone about the Commendams; which I thought at first had been only to adjourn the court, but I heard after that they proceeded to argument.

In this their doing, I conceive they must either except to the nature of the commandment, or to the credence thereof; both which, I assure myself, your Majesty will maintain.

For if they should stand upon the general ground, "Nulli negabimus, nulli differemus justitiam,"† it receiveth two answers. The one, that reasonable and mature advice may not be confounded with delay; and that they can well allege when it pleaseth them. The other is, that there is a great difference between a case merely between subject and subject, and where the king's interest is in question directly or by consequence. As for the attorney's place and commission, it is as proper for him to signify the king's pleasure to the judges, as for the secretary to signify the same to the privy-council; and so it hath ever been.

These things were a little strange if there came not so many of them together, as the one maketh the other seem less strange: but your Majesty hath fair occasions to remedy all with small aid; I say no more for the present.

I was a little plain with my lord Coke in these matters; and when his answer was, that he knew all these things, I said he could never profit too much in knowing himself and his duty. God ever preserve your Majesty.

CXLV. A MEMORIAL FOR HIS MAJESTY, CORRECTED WITH SIR FR. BACON'S OWN HAND. 1616.‡

It seemeth this year of the fourteenth of his Majesty's reign, being a year of a kind of majority in his government, is consecrated to justice;§ which as his Majesty hath performed to his subjects in this late memorable occasion, so he is now to render and perform to himself, his crown, and posterity.

That his council shall perceive by that which his Majesty shall now communicate with them, that the mass of his business is continually prepared in his own royal care and cogitations, howsoever he produceth the same to light, and to act "per opera dierum."‖

That his Majesty shall make unto them now a declarative of two great causes, whereof he doubteth not they have heard by glimpses; the one concerning his high court of chancery, the other concerning the church and prelacy; but both of them deeply touching his prerogative and sovereignty, and the flowers of his crown.

That about the end of Hilary term last, there came to his Majesty's ears, only by common voice and report, not without great rumour and wonder, that there was somewhat done in the king's bench the last day of that term, whereby his chancery should be pulled down, and be brought in question for *præmunire*; being the most heinous offence after treason, and felony, and misprision of treason: and that the time should be when the chancellor lay at the point of death.

That his Majesty was so far from hearing of this by any complaint from his chancellor, who then had given over worldly thoughts, that he wrote letters of comfort to him upon this accident, before he heard from him; and for his attorney, his Majesty challenged him for not advertising him of that, of which it was proper for his Majesty to be informed from him.

That his Majesty being sensible of this so great novelty and perturbation in his courts of justice, nevertheless used this method and moderation, that before he would examine this great affront and dis-

* This case is reported by my lord Hobart, p. 109.
† Mag. Chart.
‡ Stephens's First Collection, p. 140.
§ By the laws, several ages are assigned to persons for several purposes; and by the common law the fourteenth year is a kind of majority, and accounted an age of discretion. At that time a man may agree or disagree to a precedent marriage: the heir in socage may reject the guardian appointed by law, and choose a new one: and the woman at that age shall be out of ward. *Stephens.*
‖ "Per opera dierum," alluding to the gradations Almighty God was pleased to observe in the creating of the world. In this paragraph Sir Francis Bacon insinuates, what he expressly declares Essay xlvii. p. 300, that in all negotiations of difficulty a man must first prepare business, and so ripen it by degrees. *Stephens.*

grace offered to his chancery and chancellor, he would first inform himself whether the chancery or chancellor were in fault; and whether the former precedents of chancery did warrant the proceedings there after judgment passed at common law, which was the thing in question, and thereupon his Majesty called his learned counsel to him, and commanded them to examine the precedents of chancery, and to certify what they found: which they did; and by their certificate it appeareth, that the precedents of that kind were many and precise in the point, and constant, and in good times, and allowed many times by the judges themselves.

That after this his Majesty received from the lord chancellor a case, whereby the question was clearly set down and contained within the proper bounds of the present doubt; being, Whether upon apparent matter of equity, which the judges of the law by their place and oath cannot meddle with or relieve, if a judgment be once passed at common law, the subject shall perish, or that the chancery shall relieve him; and whether there be any statute of *præmunire* or other, to restrain this power in the chancellor; which case, upon the request of the lord chancellor, his Majesty likewise referred to his learned counsel, and the prince's attorney Mr. Walter was joined with them, who, upon great advice and view of the original records themselves, certified the chancery was not restrained by any statute in that case.

That his Majesty again required his learned counsel to call the clerks of the king's bench to them, and to receive from them any precedents of indictments in the king's bench against the chancery for proceeding in the like case; who produced only two precedents, being but indictments offered or found, upon which there was no other proceeding; and the clerks said, they had used diligence and could find no more.

That his Majesty, after he had received this satisfaction that there was ground for that the chancery had done, and that the chancery was not in fault, he thought then it was time to question the misdemeanor and contempt in scandalizing and dishonouring his justice in that high court of chancery in so odious a manner; and commanded his attorney-general, with the advice of the rest of his learned counsel, to prosecute the offenders in the star-chamber, which is done; and some of them are fled, and others stand mt and will not answer.

That there resteth only one part more towards his Majesty's complete information in this cause: which is to examine that which was done in open court the said last day of Hilary term, and whether the judges of the king's bench did commit any excess of authority; or did animate the offenders otherwise than according to their duty and place; which inquiry, because it concerneth the judges of a court to keep order and decorum, his Majesty thinketh not so convenient to use his learned counsel therein, but will commit the same to some of the council-table, and his learned counsel to attend them.

This declared, or what else his Majesty in his own high wisdom shall think good; it will be fit time to have the certificate of the learned counsel openly read.

His Majesty may, if he please, forbear to publish at this time at the table the committees; but signify his pleasure to themselves afterwards.

The committees named by his Majesty, were the archbishop of Canterbury, secretary Lake, the chancellor of the exchequer, and the master of the rolls.

This report is to be prefixed, to be given in by Wednesday at night, that his Majesty may communicate it with his council, and take farther order on Thursday thereupon, if his Majesty be so pleased.

At this declaration, it is his Majesty's direction, to the end things may appear to be the more evenly carried, that neither my lord chancellor nor my lord chief justice be present.

But then when his Majesty entereth into the second declarative, my lord chancellor is to be called for; but my lord chief justice not; because it concerneth him.

For the second declarative: that his Majesty hath reason to be offended and grieved, in that which passed touching the Commendams, both in matter and manner: for the matter, that his Majesty's religious care of the church and of the prelacy, and namely, of his lords spiritual the bishops, may well appear, first, in that he hath utterly expelled those sectaries or inconformable persons that spurned at the government; secondly, that by a statute made in the first year of his reign, he hath preserved their livings from being wasted and dilapidated by long leases, and therein bound himself and his crown and succession; and lastly, that they see two bishops privy counsellors at the table, which hath not been of late years.

That agreeably to this his Majesty's care and good affection, hearing that there was a case of the bishop of Lincoln's, wherein his Majesty's supreme power of granting Commendams, which in respect of the exility of bishoprics is sometimes necessary, was questioned to be overthrown or weakened; he commanded his attorney-general, not only to have care to maintain it according to his place, but also that he should relate to his Majesty how things passed; and did also command the bishop of Winchester to be present at the public argument of the case; and to report to his Majesty the true state of that question, and how far it extended.

This being accordingly done; then upon report of the bishop of Winchester in presence of the lord chancellor, his Majesty thought it necessary, that before the judges proceeded to declare their opinion they should have conference with his Majesty, to the end to settle some course, that justice might be done, and his regal power, whereof his crown had been so long vested, not touched nor diminished: and thereupon commanded his attorney, who by his place ought properly to signify his Majesty's pleasure to his judges, as his secretary doth to his privy council, in the presence of the lord chancellor and the bishop, to signify his pleasure to the judges, that because his Majesty thought it needful to consult with them in that case before they proceeded to judgment; and that his Majesty's business, as they

all knew, was very great, and Midsummer term so near at hand, and the cause argued by his attorney so lately, they should put off the day till they might advise with his Majesty at his next coming to town. That his Majesty's attorney signified so much by his letters, the next day after he had received his commandment, to all the judges, and that in no imperious manner, but alleging the circumstances aforesaid, that the case was lately argued, his Majesty's business great, another term at hand, &c.

Now followeth the manner that was held in this, which his Majesty conceiveth was not only indiscreet, but presumptuous and contemptuous.

For first, they disobeyed this his Majesty's commandment, and proceeded to public argument notwithstanding the same; and thought it enough to certify only their mind to his Majesty.

Secondly, in a general letter under all their hands, howsoever it may be upon divided opinion, they allege unto his Majesty their oath; and that his Majesty's commandment, for the attorney's letter was but the case that it was wrapped in, was against law; as if maturity and a deliberate proceeding were a delay, or that commandment of stay in respect of so high a question of state and prerogative, were like a commandment gotten by importunity, or in favour of a suitor.

Thirdly, above all, it is to be noted and justly doubted, that upon the contrary, in this that they have done, they have broken their oath; for their oath is to counsel the king when they shall be called; and if when the king calleth them to counsel, they will do the deed first, and give him counsel after, this is more than a simple refusal.

Lastly, it is no new thing upon divers particular occasions, of a far higher nature than the consulting with their sovereign about a cause of great moment, to put off days, and yet no breach of oath. And there was another fair passage well known to my lord Coke, that he might have used if it had pleased him; for that very day was appointed for the king's great cause in the chancery, both for my lord Hobart and him; which cause ought to have had precedence afore any private cause, as they would have this seem to be.

To this letter his Majesty made a most princely and prudent answer, which I leave to itself.

Upon this declaration his Majesty will be pleased to have the judges' letter and his own letter read.

Then his Majesty, for his part as I conceive, will be pleased to ask the advice of his council as well for the stay of the new day, which is Saturday next, as for the censure and reproof of the contempt passed: for though the judges are a reverend body, yet they are, as all subjects are, corrigible.

CXLVI. TO SIR GEORGE VILLIERS.*

SIR,

THE king giveth me a noble choice; and you are the man my heart ever told me you were. Ambition would draw me to the latter part of the choice; but in respect of my hearty wishes, that my lord chancellor may live long; and the small hopes I have, that I shall live long myself; and, above all, because I see his Majesty's service daily and instantly bleedeth; towards which, I persuade myself, vainly perhaps, but yet in mine own thoughts firmly and constantly, that I shall give, when I am of the table, some effectual furtherance, as a poor thread of the labyrinth, which hath no other virtue, but an united continuance, without interruption or distraction, I do accept of the former, to be counsellor for the present, and to give over pleading at bar; let the other matter rest upon my proof, and his Majesty's pleasure, and the accidents of time. For, to speak plainly, I would be loth that my lord chancellor, to whom I owe most after the king and yourself, should be locked to his successor, for any advancement or gracing of me. So I ever remain

Your true and most devoted and most obliged servant,

June 3, 1616. FR. BACON.

CXLVII. TO SIR GEORGE VILLIERS †

SIR,

I SEND his Majesty a draught of the act of council concerning the judges' letter, penned as near as I could to his Majesty's instructions received in your presence. I then told his Majesty my memory was not able to keep way with his; and therefore his Majesty will pardon me for any omissions or errors, and be pleased to supply and reform the same. I am preparing some other materials for his Majesty's excellent hand, concerning business that is coming on: for since his Majesty hath renewed my heart within me, methinks I should double my endeavours. God ever preserve and prosper you. I rest

Your most devoted and bounden servant,

FR. BACON.

June 12, 1616.

CXLVIII. TOUCHING THE COMMENDAMS.‡

At Whitehall the sixth of June, Anno 1616.§

Present the KING'S MAJESTY.

Lord Archbishop of Cant.	Lord Wotton.
Lord Chancellor.	Lord Stanhope.
Lord Treasurer.	Lord Fenton.
Lord Privy-Seal.	Mr. Vice-Chamberlain.
Lord Chamberlain,	Mr. Secretary Lake.
Duke of Lenox.	Mr. Secretary Winwood.
Lord Zouche.	Mr. Chancellor of the Exchequer.
Bishop of Winton.	
Lord Knollys.	Master of the Rolls.

which, being written in a fair manner, I accidentally bought, and have corrected several errors therein. If any remain, as I believe the reader will think there doth; it is because I had no opportunity to peruse the council-books. *Stephens.*

* Rawley's Resuscitatio. † Ibid.

‡ Stephens's First Collection, p. 149.

§ It is very clear, that this is the act of council referred to in the preceding letter, and drawn up by Sir Francis Bacon:

His Majesty having this day given order for meeting of the council, and that all the judges, being twelve in number, should be sent for to be present; when the lords were sat, and the judges ready attending, his Majesty came himself in person to council, and opened to them the cause of that assembly; which was: That he had called them together concerning a question that had relation to no private person, but concerned God and the king, the power of his crown, and the state of this church whereof he was protector; and that there was no fitter place to handle it than at the head of his council-table: that there had been a question pleaded and argued concerning Commendams; the proceedings wherein had either been mis-reported or mis-handled; for his Majesty for a year since had received advertisements concerning the cause in two entrances, by some that intrenched upon his prerogative royal in the general power of granting Commendams; and by others, that the doubt rested only upon a special nature of a Commendam, such as in respect of the incongruity and exorbitant form thereof might be questioned, without impeaching or weakening the general power of all.

Whereupon his Majesty, willing to know the true state thereof, commanded the lord bishop of Winchester* and Mr. Secretary Winwood to be present at the next argument, and to report the state of the question and proceeding to his Majesty. But Mr. Secretary Winwood being absent by occasion, the lord of Winchester only was present, and made information to his Majesty of the particulars thereof, which his Majesty commanded him to report to the board. Whereupon the lord of Winchester stood up and said, that serjeant Chiborne, who argued the cause against the Commendams, had maintained divers positions and assertions very prejudicial to his Majesty's prerogative royal; as first, that the translation of bishops was against the canon law, and for authority vouched the canons of the council of Sardis; that the king had not power to grant Commendams, but in case of necessity; that there could be no necessity, because there could be no need for augmentation of living, for no man was bound to keep hospitality above his means; besides many other parts of his argument tending to the overthrow of his Majesty's prerogative in case of Commendams.

The lord of Winchester having made his report, his Majesty resumed his former narrative, letting the lords know, that after the lord of Winton had made unto his Majesty a report of that which passed at the argument of the cause, like in substance unto that which now had been made; his Majesty apprehending the matter to be of so high a nature, commanded his attorney-general to signify his Majesty's pleasure unto the lord chief justice; That in regard of his Majesty's most weighty occasions, and for that his Majesty held it necessary upon the lord of Winton's report, that his Majesty be first consulted with, before the judges proceed to argue it; therefore the day appointed for the judges' argument should be put off till they might speak with his Majesty; and this letter of his Majesty's attorney was, by his Majesty's commandment, openly read as followeth, *in hæc verba*.

* Dr. Bilson, who died June 18, 1616.

MY LORD,

"IT is the king's express pleasure, that because his Majesty's time would not serve to have conference with your lordship and his judges, touching the cause of Commendams, at his last being in town; in regard of his Majesty's other most weighty occasions; and for that his Majesty holdeth it necessary, upon the report which my lord of Winchester, who was present at the last arguments by his Majesty's royal commandment, made to his Majesty, that his Majesty be first consulted with, ere there be any farther proceedings by arguments by any of the judges, or otherwise; therefore that the day appointed for the farther proceedings by arguments of the judges in that case, be put off till his Majesty's farther pleasure be known, upon consulting with him; and to that end, that your lordship forthwith signify his commandment to the rest of the judges: whereof your lordship may not fail: and so I leave your lordship to God's goodness."

Your loving friend to command,

FR. BACON.

This Thursday afternoon,
April 25, 1616.

That upon this letter received, the lord chief justice returned word to his Majesty's said attorney by his servant; that it was fit the rest of his brethren should understand his Majesty's pleasure immediately by letters from the said attorney to the judges of the several benches; and accordingly it was done; whereupon all the said judges assembled, and by their letter under their hands certified his Majesty, that they held those letters, importing the signification aforesaid, to be contrary to law, and such as they could not yield to the same by their oath; and that thereupon they had proceeded at the day, and did now certify his Majesty thereof: which letter of the judges his Majesty also commanded to be openly read, the tenor whereof followeth *in hæc verba*.

MOST DREAD AND MOST GRACIOUS SOVEREIGN,

"IT may please your most excellent Majesty to be advertised, that this letter here enclosed was delivered unto me your chief justice on Thursday last in the afternoon, by a servant of your Majesty's attorney-general; and letters of the like effect were on the day following sent from him by his servant to us your Majesty's justices of every of the courts at Westminster. We are and ever will be ready with all faithful and true hearts, according to our bounden duties, to serve and obey your Majesty, and think ourselves most happy to spend our times and abilities to do your Majesty true and faithful service in this present case mentioned in this letter. What information hath been made unto you, whereupon Mr. Attorney doth ground his letter, from the report of the bishop of Winton, we know not: this we

know, that the true substance of the cause summarily is thus; it consisteth principally upon the construction of two acts of parliament, the one of the twenty-fifth year of K. Edw. III. and the other of the twenty-fifth year of K. Hen. VIII. whereof your Majesty's judges upon their oaths, and according to their best knowledge and learning, are bound to deliver their true understanding faithfully and uprightly; and the case between two for private interest and inheritance earnestly called on for justice and expedition. We hold it our duty to inform your Majesty, that our oath is in these express words: That in case any letters come unto us contrary to law, that we do nothing by such letters, but certify your Majesty thereof, and go forth to do the law, notwithstanding the same letters. We have advisedly considered of the said letter of Mr. Attorney, and with one consent do hold the same to be contrary to law, and such as we could not yield to the same by our oath, assuredly persuading ourselves that your Majesty being truly informed, that it standeth not with your royal and just pleasure to give way to them: and knowing your Majesty's zeal to justice to be most renowned, therefore we have, according to our oaths and duties, at the very day prefixed the last term, proceeded, and thereof certified your Majesty; and shall ever pray to the Almighty for your Majesty in all honour, health and happiness long to reign over us."

EDW. COKE,	ED. BROMLEY,
HENRY HOBART,	JOHN CROKE,
LAUR. TANFIELD,	HUMPHRY WINCH,
PET. WARBERTON,	JOHN DODDERIDGE,
GEORGE SNIGGE,	AUGUSTIN NICHOLLS,
JA. ALTHAM,	ROBERT HOUGHTON.

Serjeant's-Inn,
25th April, 1616.

His Majesty having considered of this letter, by his princely letters returned answer, reporting himself to their own knowledge and experience, what princely care he hath ever had since his coming to the crown, to have justice duly administered to his subjects, with all possible expedition, and how far he was from crossing or delaying of justice, when the interest of any private person was questioned: but on the other side expressing himself, that where the case concerned the high powers and prerogatives of the crown, he would not endure to have them wounded through the sides of a private person; admonishing them also, lastly, of a custom lately entertained, of a greater boldness to dispute the high points of his Majesty's prerogative in a popular and unlawful liberty of argument more than in former times; and making them perceive also how weak and impertinent the pretence of allegation of their oath was in a case of this nature, and how well it might have been spared; with many other weighty points in the said letter contained: which letter also by his Majesty's appointment and commandment was publicly read *in hæc verba*.

JAMES REX.

" Trusty and well-beloved councellors, and trusty and well-beloved, we greet you well. We perceive by your letter, that you conceive the commandment given you by our attorney-general in our name to have proceeded upon wrong information: but if you list to remember what princely care we have ever had, since our coming to this crown, to see justice duly administered to our subjects, with all possible expedition; and how far we have ever been from urging the delay thereof in any sort, you may safely persuade yourselves that it was no small reason that moved us to send you that direction. You might very well have spared your labour in informing us of the nature of your oath; for although we never studied the common law of England, yet are we not ignorant of any points which belong to a king to know: we are therefore to inform you hereby, that we are far from crossing or delaying any thing which may belong to the interest of any private party in this case; but we cannot be contented to suffer the prerogative royal of our crown to be wounded through the sides of a private person: we have no care at all which of the parties shall win this process in this case, so that right prevail, and that justice be truly administered. But on the other side, we have reason to foresee that nothing be done in this case which may wound our prerogative in general; and therefore so that we may be sure that nothing shall be debated amongst you which may concern our general power of giving Commendams, we desire not the parties to have one hour's delay of justice: but that our prerogative should not be wounded in that regard for all times hereafter, upon pretext of private persons' interest, we sent you that direction; which we account as well to be wounded if it be publicly disputed upon, as if any sentence were given against it: we are therefore to admonish you, that since the prerogative of our crown hath been more boldly dealt withal in Westminster-Hall, during the time of our reign, than ever it was before, in the reigns of divers princes immediately preceding us, that we will no longer endure that popular and unlawful liberty; and therefore we were justly moved to send you that direction to forbear to meddle in a cause of so tender a nature, till we had farther thought upon it. We have cause indeed to rejoice of your zeal for your speedy execution of justice; but we would be glad that all our subjects might so find the fruits thereof, as that no pleas before you were of older date than this is. But as to your argument, which you found upon your oath, you give our predecessors, who first founded the oath, a very charitable meaning, in perverting their intention and zeal to justice, to make a weapon of it to use against their successors; for although your oath be, that you shall not delay justice between any private persons or parties, yet was it not meant that the king should thereby receive harm, before he be forewarned thereof; neither can you deny, but that every term you will, out of your own discretions, for reasons known unto you, put off either the hearing or determining of any ordinary cause betwixt private persons till the next term following. Our pleasure therefore is, who are the head and fountain of justice under God in our

dominions, and we out of our absolute power and authority royal do command you, that you forbear to meddle any farther in this plea till our coming to town, and that out of our own mouth you hear our pleasure in this business; which we do out of the care we have, that our prerogative may not receive an unwitting and indirect blow, and not to hinder justice to be administered to any private parties, which no importunities shall persuade us to move you in. Like as, only for the avoiding of the unreasonable importunity of suitors in their own particular, that oath was by our predecessors ordained to be ministered unto you: so we wish you heartily well to fare.

Postscript. "You shall upon the receipt of this letter call our attorney-general unto you, who will inform you of the particular points which we are unwilling to be disputed of in this case."

This letter being read, his Majesty resolved to take into his consideration the parts of the judges' letter and other their proceedings in that cause, and the errors therein contained and committed; which errors his Majesty did set forth to be both in matter and manner: in matter, as well by omission as commission; for omission, that it was a fault in the judges, that when they heard a counsellor at the bar presume to argue against his Majesty's prerogative, which in this case was in effect his supremacy, they did not interrupt and reprove sharply that base and bold course of defaming or impeaching things of so high a nature by discourse; especially since his Majesty hath observed, that ever since his coming to the crown, the popular sort of lawyers have been the men, that most affrontedly in all parliaments have trodden upon his prerogative: which being most contrary to their vocation of any men, since the law or lawyers can never be respected if the king be not reverenced; it doth therefore best become the judges of any, to check and bridle such impudent lawyers, and in their several benches to disgrace them that bear so little respect to their king's authority and prerogative: that his Majesty had a double prerogative, whereof the one was ordinary and had relation to his private interest, which might be, and was every day, disputed in Westminster-Hall; the other was of a higher nature, referring to his supreme and imperial power and sovereignty, which ought not to be disputed or handled in vulgar argument; but that of late the courts of the common law are grown so vast and transcendent, as they did both meddle with the king's prerogative, and had encroached upon all other courts of justice; as the high commission, the councils established in Wales and at York, the court of requests.

Concerning that which might be termed commission, his Majesty took exception at the judges' letter both in matter and form: for matter, his Majesty plainly demonstrated, that whereas it was contained in the judges' letter that the signification of his Majesty's letter as aforesaid was contrary to law, and not agreeable to the oath of a judge; that could not be: first, for that the putting off any hearing or proceeding upon any just or necessary cause, is no denying or delaying of justice, but wisdom and maturity of proceeding; and that there cannot be a more just and necessary cause of stay, than the consulting with the king, where the cause concerns the crown; and that the judges did daily put off causes upon lighter occasions; and likewise his Majesty did desire to know of the judges, how his calling them to consult with him was contrary to law, which they could never answer unto.

Secondly, That it was no bare supposition or surmise, that this cause concerned the king's prerogative; for that it had been directly and plainly disputed at the bar; and the very disputing thereof in a public audience is both dangerous and dishonourable to his Majesty.

Thirdly, That the manner of the putting off that which the king required, was not infinite nor long time, but grounded upon his Majesty's weighty occasions, which were notorious: by reason whereof he could not speak with the judges before the argument; and that there was a certain expectation of his Majesty's return at Whitsuntide: and likewise that the cause had been so lately handled and argued, and would not receive judgment by the Easter term next, as the judges themselves afterwards confessed.

And afterwards, because there was another just cause of absence for the two chief justices, for that they ought to have assisted the lord chancellor the same day in a great cause of the king's followed by the lord Hunsdon against the lord William Howard in chancery; which cause of the king's especially being so worthy, ought to have had precedency before any cause betwixt party and party. Also whereas it was contained in the judges' letter that the cause of Commendams was but a cause of private interest between party and party, his Majesty showed plainly the contrary; not only by the argument of serjeant Chiborne, which was before his commandment, but by the argument of the judges themselves, namely, justice Nicholls, which was after; but especially since one of the parties is a bishop who pleaded for the Commendams by the virtue of his Majesty's prerogative.

Also whereas it was contained in the judges' letter, that the parties called upon them earnestly for justice, his Majesty conceived it to be but pretence; urging them to prove that there was any solicitation by the parties for expedition, otherwise than in an ordinary course of attendance; which they could not prove.

As for the form of the letter, his Majesty noted, that it was a new thing, and very indecent and unfit for subjects to disobey the king's commandment, but most of all to proceed in the mean time, and to return to him a bare certificate; whereas they ought to have concluded with the laying down and representing of their reasons modestly to his Majesty, why they should proceed; and so to have submitted the same to his princely judgment, expecting to hear from him whether they had given him satisfaction.

After this his Majesty's declaration, all the judges fell down upon their knees, and acknowledged their error for matter and form, humbly craving his Majesty's gracious favour and pardon for the same.

But for the matter of the letter, the lord chief justice of the king's bench entered into a defence thereof; the effect whereof was, that the stay required by his Majesty was a delay of justice, and therefore contrary to law and the judges' oath; and that the judges knew well amongst themselves, that the case, as they meant to handle it, did not concern his Majesty's prerogative of granting of Commendams: and that if the day had not held by the not coming of the judges, the suit had been discontinued, which had been a failing of justice, and that they could not adjourn it, because Mr. Attorney's letter mentioned no day certain, and that an adjournment must always be to a day certain.

Unto which answer of the chief justice his Majesty did reply; that for the last conceit, it was mere sophistry, for that they might in their discretions have prefixed a convenient day, such as there might have been time for them to consult with his Majesty before, and that his Majesty left that point of form to themselves.

And for that other point, that they should take upon them peremptorily to discern whether the plea concerned the king's prerogative, without consulting with his Majesty first, and informing his princely judgment, was a thing preposterous; for that they ought first to have made that appear to his Majesty, and so to have given him assurance thereof upon consulting with him.

And for the matter, that it should be against the law and against their oath, his Majesty said he had spoken enough before; unto which the lord chief justice in effect had made no answer, but only insisted upon the former opinion; and therefore the king required the lord chancellor to deliver his opinion upon that point, Whether the stay that had been required by his Majesty were contrary to law, or against the judges' oath?

The chancellor stood up and moved his Majesty, that because this question had relation to matter of law, his Majesty would be informed by his learned counsel first, and they first to deliver their opinions, which his Majesty commanded them to do.

Whereupon his Majesty's attorney-general gave his opinion, that the putting off of the day in manner as was required by his Majesty, to his understanding was without all scruple no delay of justice, nor danger of the judges' oath; insisting upon some of the reasons which his Majesty had formerly opened, and adding, that the letter that he had formerly written by his Majesty's command was no imperious letter; as to say his Majesty for certain causes, or for causes known to himself, would have them put off the day: but fairly and plainly expressed the causes unto them; for that the king conceived upon my lord of Winton's report, that the cause concerned him: and that his Majesty would have willingly spoken with them before, but by reason of his important business could not; and therefore required a stay till they might conveniently speak with him, which they knew could not be long. And in conclusion of his speech wished the judges to consider seriously with themselves, whether they were not in greater danger of breach of their oaths by the proceedings, than they would have been by their stay; for that it is part of their oath to counsel his Majesty when they are called; and if they will proceed first in a business whereupon they are called to counsel, and will counsel him when the matter is past, it is more than a simple refusal to give him counsel; and so concluded his speech, and the rest of the learned counsel consented to his opinion.

Whereupon the lord chief justice of the king's bench, answering nothing to the matter, took exception that the king's counsel learned should plead or dispute with the judges; for he said they were to plead before judges, and not to dispute with them. Whereunto the king's attorney replied, that he found that exception strange; for that the king's learned counsel were by oath and office, and much more where they had the king's express commandment, without fear of any man's face, to proceed or declare against any the greatest peer or subject of the kingdom; and not only any subject in particular, but any body of subjects or persons, were they judges, or were they of an upper or lower house of parliament, in case they exceed the limits of their authority, or took any thing from his Majesty's royal power or prerogative; and so concluded, that this challenge, and that in his Majesty's presence, was a wrong to their places, for which he and his fellows did appeal to his Majesty for reparation. And thereupon his Majesty did affirm, that it was their duty so to do, and that he would maintain them therein, and took occasion afterward again to speak of it; for when the lord chief justice said, he would not dispute with his Majesty, the king replied, That the judges would not dispute with him, nor his learned counsel might not dispute with them: so whether they did well or ill, it must not be disputed.

After this the lord chancellor declared his mind plainly and clearly, that the stay that had been by his Majesty required, was not against the law, nor a breach of the judges' oath, and required that the judges' oath itself might be read out of the statute, which was done by the king's solicitor, and all the words thereof weighed and considered.

Thereupon his Majesty and the lords thought good to ask the judges severally their opinions; the question being put in this manner; Whether, if at any time, in a case depending before the judges, his Majesty conceived it to concern him either in power or profit, and thereupon required to consult with them, and that they should stay proceedings in the mean time, they ought not to stay accordingly? They all, the lord chief justice only excepted, yielded that they would, and acknowledged it to be their duties so to do; only the lord chief justice of the king's bench said for answer, that when the case should be, he would do that which should be fit for a judge to do. And the lord chief justice of the common pleas, who had assented with the rest, added, that he would ever trust the justice of his Majesty's commandment. After this was put to a point, his Majesty thought fit, in respect of the farther day of argument, appointed the Saturday following for the Commendams, to know from

his judges what he might expect from them concerning the same. Whereupon the lord of Canterbury breaking the case into some questions, his Majesty did require his judges to deal plainly with him, whether they meant in their argument to touch the general power of granting Commendams, yea or no? Whereupon all the said judges did promise and assure his Majesty, that in the argument of the said case of Commendams, they would speak nothing which should weaken or draw into doubt his Majesty's prerogative for granting of them; but intended particularly to insist upon the points of *lapse* and other judicial points of this case, which they conceived to be of a form differing from all other Commendams which have been practised.

The judges also went farther, and did promise his Majesty, that they would not only abstain from speaking any thing to weaken his Majesty's prerogative of Commendams, but would directly and in plain terms affirm the same, and correct the erroneous and bold speeches which had been used at the bar in derogation thereof.

Also the judges did in general acknowledge and profess with great forwardness, that it was their duty, if any counsellor at the law presumed at any time to call in question his Majesty's high prerogative, that they ought to reprehend them and silence them; and all promised so to do hereafter.

Lastly, the two judges that were then next to argue, Mr. Justice Dodderidge and Mr. Justice Winch, opened themselves unto his Majesty thus far; that they would insist chiefly upon the *lapse*, and some points of uncertainty, repugnancy, and absurdity, being peculiar to this Commendam; and that they would show their dislike of that which had been said at the bar for the weakening of the general power; and Mr. Justice Dodderidge said he would conclude for the king, that the church was void and in his Majesty's gift; he also said that the king might give a Commendam to a bishop, either before or after his consecration, and that he might give it him during his life, or for a certain number of years.

The judges having thus far submitted and declared themselves, his Majesty commanded them to keep the bounds and limits of their several courts, not to suffer his prerogative to be wounded by rash and unadvised pleading before them, or by new invention of law; for as he well knew the true and ancient common law is the most favourable for kings of any law in the world; so he advised them to apply their studies to that ancient and best law, and not to extend the power of any other of their courts beyond their due limits; following the precedents of their best ancient judges in the times of the best government; and that then they might assure themselves that he, for his part, in his protection of them, and expediting of justice, would walk in the steps of ancient and best kings. Whereupon he gave them leave to proceed in their argument.

When the judges were removed, his Majesty that had forborne to ask the voices and opinions of his council before the judges, because he would not prejudicate the freedom of the judges' opinion, concerning whether the stay of proceedings, that hath been by his Majesty required, could by any construction be thought to be within the compass of the judges' oath, which they had heard read unto them, did then put the question to his council; who all with one consent did give opinion, that it was far from any colour or shadow of such interpretation, and that it was against common sense to think the contrary, especially since there is no mention made in their oath of delay of justice, but only that they should not deny justice, nor be moved by any of the king's letters, to do any thing contrary to law or justice.

G. CANT.	W. KNOLLYS,
THO. ELLESMERE, CANC.	JOHN DIGBY,
TH. SUFFOLK,	RALPH WINWOOD,
E. WORCESTER,	THO. LAKE,
PEMBROKE,	FULKE GREVILLE,
NOTTINGHAM,	JUL. CÆSAR,
LENOX,	FRA. BACON.

* Rawley's Resuscitatio, and Stephens's Second Collection, p. 2.

† Soon after this date Dr. Burgess was presented to the parsonage of Sutton-Colfield in Warwickshire. In 1620 he attended Sir Horace Vere into the Palatinate, when that noble general conducted thither a gallant regiment, the largest for number, and greatest for quality, being much composed of gentlemen, that had been seen. *Stephens.*

‡ Stephens's First Collection, p. 167.

CXLIX. TO SIR GEORGE VILLIERS, FOR THE RESTORING TO DR. BURGESS THE LIBERTY OF PREACHING.*

SIR,

I DO think you may do yourself honour, and, that which is more, do a good work; if you will assist and perfect a motion begun, and that upon a good ground, both of submission and conformity, for the restoring of doctor Burgess to preach; † and I wish likewise, that if Gray's-Inn should think good, after he is free from the state, to choose him for their preacher, his Majesty should not be against it: for certainly we should watch him well if he should fly forth; so as he cannot be placed in a more safe auditory. This may seem a trifle, but I do assure you I do scarce know a particular, wherein you may open more honest mouths to speak honour of you, than this. And I do extremely desire there may be a full cry from all sorts of people, especially the best, to speak, and to trumpet out your commendations. I pray you take it to heart, and do somewhat in it. I rest

Your devoted and bounden servant,

FR. BACON.

June 12, 1616.

CL. TO SIR GEORGE VILLIERS.‡

SIR,

THERE is a particular wherein I think you may do yourself honour, which, as I am informed, hath

been laboured by my lady of Bedford,* and put in good way by the bishop of Bath and Wells,† concerning the restoring to preach of a famous preacher, one doctor Burgess; who, though he hath been silenced a great time, yet he hath now made such a submission touching his conformity, as giveth satisfaction. It is much desired also by Gray's-Inn, if he shall be free from the state, to choose him for their preacher: and certainly it is safer to place him there, than in another auditory, because he will be well watched, if he should any ways fly forth in his sermons beyond duty. This may seem a trifle, but, I do assure you, in opening this man's mouth to preach, you shall open every man's mouth to speak honour of you; and I confess I would have a full cry of puritans, of papists, of all the world, to speak well of you; and, besides, I am persuaded, which is above all earthly glory, you shall do God good service in it. I pray deal with his Majesty in it. I rest

Your devoted and bounden servant,

FR. BACON.

June 13, 1616.

CLI. TO SIR GEORGE VILLIERS.‡

SIR,

I SEND you enclosed a warrant for my lady of Somerset's pardon, reformed in that main and matcrial point, of inserting a clause [that she was not a principal, but an accessary before the fact, by the instigation of base persons.] Her friends think long to have it despatched, which I marvel not at, for that in matter of life moments are numbered.

I do more and more take contentment in his Majesty's choice of Sir Oliver St. John, for his deputy of Ireland, finding, upon divers conferences with him, his great sufficiency; and I hope the good intelligence, which he purposeth to hold with me by advertisements from time to time, shall work a good effect for his Majesty's service.

I am wonderful desirous to see that kingdom flourish, because it is the proper work and glory of his Majesty and his times. And his Majesty may be pleased to call to mind, that a good while since, when the great rent and divisions were in the parliament of Ireland, I was no unfortunate remembrancer to his Majesty's princely wisdom in that business. God ever keep you and prosper you.

Your true and most devoted and bounden servant,

FR. BACON.

1 July, 1616.

CLII. TO SIR GEORGE VILLIERS.§

SIR,

I THINK I cannot do better service towards the good estate of the kingdom of Ireland, than to procure the king to be well served in the eminent places of law and justice; I shall therefore name unto you for the attorney's place there, or for the solicitor's place, if the new solicitor shall go up, a gentleman of mine own breeding and framing. Mr. Edward Wyrthington of Gray's-Inn; he is born to eight hundred pounds a year; he is the eldest son of a most severe justicer, amongst the recusants of Lancashire, and a man most able for law and speech, and by me trained in the king's causes. My lord deputy, by my description, is much in love with the man. I hear my lord of Canterbury, and Sir Thomas Laque, should name one Sir John Beare, and some other mean men. This man I commend upon my credit, for the good of his Majesty's service. God ever preserve and prosper you. I rest,

Your most devoted and most bounden servant,

FR. BACON.

2 July, 1616.

CLIII. TO SIR GEORGE VILLIERS, ABOUT IRISH AFFAIRS.‖

SIR,

BECAUSE I am uncertain whether his Majesty will put to a point some resolutions touching Ireland, now at Windsor; I thought it my duty to attend his Majesty by my letter, and thereby to supply my absence, for the renewing of some former commissions for Ireland, and the framing a new commission for the wards and the alienations, which appertain properly to me as his Majesty's attorney, and have been accordingly referred by the lords. I will undertake that they are prepared with a greater care, and better application to his Majesty's service in that kingdom, than heretofore they have been; and therefore of that I say no more. And for the instructions of the new deputy, they have been set down by the two secretaries, and read to the board; and being things of an ordinary nature, I do not see but they may pass.

But there have been three propositions and counsels which have been stirred, which seem to me of very great importance; wherein I think myself bound to deliver to his Majesty my advice and opinion, if they should now come in question.

* My lady of Bedford, so much celebrated by Dr. Donne and Sir William Temple, for the admirable disposition of her garden at Moor Park, was sister and co-heir to the last lord Harrington of Exton; who dying in the entrance of the year 1614, and the 22d of his age, revived in the nation the sense it had of the loss of prince Henry, as being a young nobleman of great hopes and piety. This lady disposed of much of the estate she had from her brother: selling Burley upon the Hill in the county of Rutland to the then marquis of Buckingham, where he afterwards adorned the seat with noble structures, which were destroyed in the time of our civil wars. But this place has now recovered its ancient splendour at the expense, and by the direction of its present lord the earl of Nottingham. *Stephens.*

† This bishop was fifth son to Sir Edward Montague, and brother to Edward the first lord Montague of Boughton, a prelate of great learning and eloquence, and very munificent; and by some called king James's ecclesiastical favourite. In 1616 he was translated to Winchester, and dying in two years' time, he was buried in the body of the abbey church at Bath, which with great cost and care he had preserved from the ruins which time and neglect were bringing upon it. *Stephens.*

‡ Stephens's Second Collection, p. 3.

§ Ibid. p. 4.

‖ Ibid. p. 5.

The first is, touching the recusant magistrates of the towns of Ireland, and the commonalties themselves their electors, what shall be done? Which consultation ariseth from the late advertisements of the two lords justices, upon the instance of the two towns, Limerick and Kilkenny; in which advertisements they represent the danger only, without giving any light for the remedy; rather warily for themselves, than agreeably to their duties and places.

In this point I humbly pray his Majesty to remember, that the refusal is not of the oath of allegiance, which is not enacted in Ireland, but of the oath of supremacy, which cutteth deeper into matter of conscience. Also, that his Majesty will, out of the depth of his excellent wisdom and providence, think, and, as it were, calculate with himself, whether time will make more for the cause of religion in Ireland, and be still more and more propitious; or whether deferring remedies will not make the case more difficult. For if time give his Majesty advantage, what needeth precipitation to extreme remedies? But if time will make the case more desperate, then his Majesty cannot begin too soon. Now, in my opinion, time will open and facilitate things for reformation of religion there, and not shut up and lock out the same. For, first, the plantations going on, and being principally of protestants, cannot but mate the other party in time: also his Majesty's care in placing good bishops and divines, in amplifying the college there, and in looking to the education of wards and the like; as they are the most natural means, so are they like to be the most effectual and happy for the weeding out of popery, without using the temporal sword; so that, I think, I may truly conclude, that the ripeness of time is not yet come.

Therefore my advice in all humbleness is, that this hazardous course of proceeding, to tender the oath to the magistrates of towns, proceed not, but die by degrees. And yet, to preserve the authority and reputation of the former council, I would have somewhat done; which is, that there be a proceeding to seizure of liberties; but not by any act of power, but by *Quo warranto*, or *Scire facias*: which is a legal course; and will be the work of three or four terms; by which time the matter will somewhat cool.

But I would not, in any case, that the proceeding should be with both the towns which stand now in contempt, but with one of them only, choosing that which shall be thought most fit. For if his Majesty proceed with both, then all the towns that are in the like case will think it a common cause; and that it is but their case to-day, and their own to-morrow. But if his Majesty proceed with one, the apprehension and terror will not be so strong; for they will think it may be their case as well to be spared as prosecuted: and this is the best advice that I can give to his Majesty in this strait; and of this opinion seemed my lord chancellor to be.

The second proposition is this: It may be his Majesty will be moved to reduce the number of his council of Ireland, which is now almost fifty, to twenty, or the like number; in respect the greatness of the number doth both embase the authority of the council, and divulge the business. Nevertheless, I do hold this proposition to be rather specious and solemn, than needful at this time; for certainly it will fill the state full of discontentment: which in a growing and unsettled estate ought not to be.

This I could wish; that his Majesty would appoint a select number of counsellors there, which might deal in the improvement of his revenue, being a thing not fit to pass through too many hands, and that the said selected number should have days of sitting by themselves, at which the rest of the council should not be present; which being once settled, then other principal business of state may be handled at those sittings, and so the rest begin to be disused, and yet retain their countenance without murmur or disgrace.

The third proposition, as it is wound up, seemeth to be pretty, if it can keep promise; for it is this, that a means may be found to reinforce his Majesty's army there by 500 or 1000 men; and that without any penny increase of charge. And the means should be, that there should be a commandment of a local removing, and transferring some companies from one province to another; whereupon it is supposed, that many that are planted in house and lands, will rather lose their entertainment, than remove; and thereby new men may have their pay, and yet the old be mingled in the country for the strength thereof.

In this proposition two things may be feared; the one, discontent of those that shall be put off; the other, that the companies shall be stuffed with *Tirones*, instead of *Veterani*. I wish therefore that this proposition be well debated ere it be admitted. Thus having performed that which duty binds me to do, I commend you to God's best preservation.

Your most devoted and bounden servant,

FR. BACON.

Gorhambury, July 5, 1616.

CLIV. TO THE KING.*

IT MAY PLEASE YOUR MOST EXCELLENT MAJESTY,

ACCORDING to your commandment, I send enclosed the preface to the patent of creation of Sir George Villiers. I have not used any glaring terms, but drawn it according to your Majesty's instructions, and the note which thereupon I framed and your Majesty allowed, with some additions which I have inserted. But I hope your Majesty will be pleased to correct and perfect it. Your Majesty will be also pleased to remember, that if the creation shall be at Roughford, your pleasure and this draught be speedily returned: for it will ask a sending of the bill for your Majesty's signature, and a sending back of the same to pass the seals, and a sending thereupon the patent itself; so

* Stephens's Second Collection, p. 9.

it must twice be sent up and down before the day. God evermore preserve your Majesty.

Your Majesty's most devoted and most bounden servant,

FR. BACON.

28 July, 1616.

CLV. TO SIR GEORGE VILLIERS ON SENDING HIS BILL FOR VISCOUNT.*

I SEND you the bill for his Majesty's signature, reformed according to his Majesty's amendments, both in the two places, which, I assure you, were both altered with great judgment, and in the third place, which his Majesty termed a question only. But he is an idle body that thinks Majesty asks an idle question; and therefore his Majesty's questions are to be answered, by taking away the cause of the question, and not by replying.

For the name, his Majesty's will is law in those things; and to speak truth, it is a well-sounding and noble name, both here and abroad; and being your proper name, I will take it for a good sign that you shall give honour to your dignity, and not your dignity to you. Therefore I have made it viscount Villiers: and for your barony, I will keep it for an earldom; for though the other had been more orderly, yet that is as usual, and both alike good in law.

For Roper's place,† I would have it by all means despatched: and therefore I marvel it lingereth. It were no good manners to take the business out of my lord treasurer's hands; and therefore I purpose to write to his lordship, if I hear not from him first by Mr. Deccomb. But if I hear of any delay, you will give me leave, especially since the king named me, to deal with Sir John Roper myself; for neither I, nor my lord treasurer, can deserve any great thanks of you in this business; considering the king hath spoken to Sir John Roper, and he hath promised: and besides, the thing itself is so reasonable, as it ought to be as soon done as said. I am now gotten into the country to my house, where I have some little liberty to think of that I would think of, and not of that which other men hourly break my head withal, as it was at London. Upon this you may conclude, that most of my thoughts are of his Majesty; and then you cannot be far off. God ever keep you, and prosper you. I rest always

Your true and most devoted servant,

FR. BACON.

Aug. 5, one of the happiest days, 1616.

* Stephens's Second Collection, p. 10.

† Sir John Roper, who had for many years enjoyed the place of the *chief clerk for enrolling of pleas in the court of king's bench*, esteemed to be worth about 4000*l.* per annum, being grown old, was prevailed with to surrender it upon being created lord Teynham, with a reservation of the profits thereof to himself during life. Upon which surrender Sir George Villiers was to have the office granted to two of his trustees for their lives, as Carr earl of Somerset was to have had before. But the lord chief justice Coke not being very forward to accept of the surrender, or make a new grant of it upon those terms, he was upon the third of October, 1616, commanded to desist from the service of his place, and at last removed from it upon the 15th of November following. His successor Sir Henry Montagu, third son of Sir Edward Montagu, of Boughton in Northamptonshire, recorder of London, and king's serjeant, being more complaisant, Sir John Roper resigned towards the latter end of the same month; and Mr. Shute, and Mr. Heath, who was afterwards the king's solicitor-general, being the deputies and trustees of Sir George Villiers, were admitted. *Stephens's Introduct.* p. 37.

‡ Rawley's Resuscitatio.

CLVI. TO SIR GEORGE VILLIERS, ON SENDING HIS PATENT.‡

SIR,

I have sent you now your patent of creation of lord Bleehly of Bleehly, and of viscount Villiers. Bleehly is your own; and I liked the sound of the name better than Whaddon; but the name will be hid, for you will be called viscount Villiers. I have put them both in a patent, after the manner of the patent of arms where baronies are joined: but the chief reason was, because I would avoid double prefaces, which had not been fit: nevertheless the ceremony of robing, and otherwise, must be double. And now, because I am in the country, I will send you some of my country fruits, which with me are good meditations: which, when I am in the city, are choked with business.

After that the king shall have watered your new dignities with his bounty of the lands which he intends you, and that some other things concerning your means, which are now likewise in intention, shall be settled upon you; I do not see but you may think your private fortunes established; and therefore it is now time, that you should refer your actions chiefly to the good of your sovereign and your country. It is the life of an ox or a beast always to eat, and never to exercise; but men are born, especially christian men, not to cram in their fortunes, but to exercise their virtues; and yet the other have been the unworthy, and sometimes the unlucky humour of great persons in our times; neither will your farther fortune be the farther off: for assure yourself, that fortune is of a woman's nature, that will sooner follow you by slighting than by too much wooing. And in this dedication of yourself to the public, I recommend unto you principally that which I think was never done since I was born; and which not done, hath bred almost a wilderness and solitude in the king's service; which is, that you countenance, and encourage, and advance able and virtuous men in all kinds, degrees, and professions. For in the time of some late great counsellors, when they bare the sway, able men were by design and of purpose suppressed; and though now since choice goeth better both in church and commonwealth, yet money, and turn-serving, and cunning canvasses, and importunity prevail too much. And in places of moment, rather make able and honest men yours, than advance those that are otherwise because they are yours. As for cunning and corrupt men, you must, I know, sometimes use them, but keep them at a distance; and let it appear, that you make use of them, rather than that they lead you. Above all,

depend wholly, next to God, upon the king; and be ruled, as hitherto you have been, by his instructions; for that's best for yourself. For the king's care and thoughts concerning you are according to the thoughts of a great king; whereas your thoughts concerning yourself are, and ought to be, according to the thoughts of a modest man. But let me not weary you: the sum is, that you think goodness the best part of greatness; and that you remember whence your rising comes, and make return accordingly. God ever keep you.

Your true and most devoted servant,

FR. BACON.

Gorhambury, Aug, 12, 1616.

CLVII. TO THE KING, OF SIR GEORGE VILLIERS'S PATENT.*

It may please your most excellent Majesty,

I have sent Sir George Villiers's patent drawn again, containing also a barony; the name Bleeby, which is his own, and to my thinking sounderh better than Whaddon. I have included both in one patent, to avoid a double prefaee, and as hath been used in the patents of earls in the like nature: nevertheless the ceremony of robing and otherwise is to be double, as is also used in the like case of earls.

It resteth, that I express unto your Majesty my great joy, in your honouring and advancing this gentleman; whom to describe, not with colours, but with true lines, I may say this; your Majesty certainly hath found out and chosen a safe nature, a capable man, an honest will, generous and noble affections, and a courage well lodged, and one that I know loveth your Majesty unfeignedly, and admireth you as much as is in a man to admire his sovereign upon earth. Only your Majesty's school, wherein he hath already so well profited, as in this entrance upon the stage, being the time of the greatest danger, he hath not committed any manifest error, will add perfection to your Majesty's comfort and the great contentment of your people. God ever preserve your Majesty. I rest in all humbleness,

Your Majesty's most bounden and devoted subject and servant,

FR. BACON.

Gorhambury, Aug. 12, 1615.

CLVIII. TO SIR GEORGE VILLIERS, ON SENDING HIS PATENT SEALED.†

Sir,

I took much contentment in that I perceived by your letter, that you took in so good part the freedom of my advice, and that yourself in your own nature and judgment consented therewith. There is no service comparable to good counsel; and the reason is, because no man can do so much for another, as a man may do for himself: now good counsel helpeth a man to help himself; but you have so happy a master as supplieth all. My service and good will shall not be wanting.

It was graciously and kindly done also of his Majesty towards me, to tell you that you were beholden to me; but it must be then for thinking of you as I do; for otherwise, for speaking as I think, it is but the part of an honest man. I send you your patent, whereof God give you joy; and I send you here enclosed a little note of remembrance for that part of the ceremony which concerneth the patent; for as for other ceremonies, I leave to others.

My lord chancellor despatched your patent presently upon the receipt; and writ to me, how glad he was of it, and how well he wished you. If you write to him a few words of thanks, I think you shall do well. God keep you and prosper you. I ever rest

Your true and most devoted servant,

FR. BACON.

Gorhambury, Aug. 19, 1616.

CLIX. TO SIR GEORGE VILLIERS, ACKNOWLEDGING THE KING'S FAVOUR.‡

Sir,

I am more and more bound unto his Majesty, who, I think, knowing me to have other ends than ambition, is contented to make me judge of mine own desires. I am now beating my brains, among many cares of his Majesty's business, touching the redeeming the time in this business of cloth. The great question is; how to miss, or how to mate the Flemings; how to pass by them, or how to pass over them.

In my next letter, I shall alter your style: but I shall never whilst I breathe alter mine own style, in being

Your true and devoted servant,

FR. BACON.

Aug. 22, 1616.

CLX. TO THE KING.§

It may please your most excellent Majesty,

First, from the bottom of my heart I thank the God of all mercy and salvation, that he hath preserved you from receiving any hurt by your fall; and I pray his Divine Majesty ever to preserve you on horseback and on foot from hurt and fear of hurt.

Now touching the clothing business; for that I perceive the cloth goeth not off as it should, and that Wiltshire is now come in with complaint, as well as Gloucestershire and Worcestershire, so that this gangrene creepeth on; I humbly pray your Majesty to take into your Majesty's princely consideration a remedy for the present stand, which

* Rawley's Resuscitatio

† Rawley's Resuscitatio, with corrections from the original.

‡ Rawley's Resuscitatio.

§ Stephens's First Collection, p. 179.

certainly will do the deed; and for any thing that I know will be honourable and convenient, though joined with some loss in your Majesty's customs, which I know in a business of this quality, and being but for an interim till you may negotiate, your Majesty doth not esteem: and it is this:

That your Majesty by your proclamation do forbid, after fourteen days, giving that time for suiting men's selves, the wearing of any stuff made wholly of silk, without mixture of wool, for the space of six months. So your Majesty shall supply outward vent with inward use, specially for the finer cloths, which are those wherein the stand principally is, and which silk weavers are likest to buy; and you shall show a most princely care over thousands of the poor people; and besides, your Majesty shall blow a horn, to let the Flemings know your Majesty will not give over the chace. Again, the winter season coming on is fittest for wearing of cloth; and there is scope enough left for bravery and vanity by lacing and embroidery, so it be upon cloth or stuffs of wool.

I thought it my duty to offer and submit this remedy, amongst others, to your Majesty's great wisdom, because it pleased you to lay the care of this business upon me; and indeed my care did fly to it before, as it shall always do to any knots and difficulties in your business, wherein hitherto I have been not unfortunate. God ever have you in his most precious custody.

Your Majesty's most faithful and most bounden servant,

FR. BACON.

Sept. 13, 1616.

CLXI. TO THE LORD VISCOUNT VILLIERS.*

My very good Lord,

It was my opinion from the beginning, that this company will never overcome the business of the cloth; and that the impediments are as much or more in the persons which are *instrumenta animata*, than in the dead business itself.

I have therefore sent unto the king here enclosed my reasons, which I pray your lordship to show his Majesty.

The new company and the old company are but the sons of Adam to me, and I take myself to have some credit with both; but it is upon fear rather with the old, and upon love rather with the new; and yet with both upon persuasion that I understand the business.

Nevertheless I walk *in via regia*, which is not absolutely acceptable to either; for the new company would have all their demands granted, and the old company would have the king's work given over and deserted.

My opinion is, that the old company be drawn to succeed into the contract, else the king's honour suffereth, and that we all draw in one way to effect that. If time, which is the wisest of things, prove the work impossible or inconvenient, which I do not yet believe, I know his Majesty and the state will not suffer them to perish.

I wish what shall be done were done with resolution and speed, and that your lordship, because it is a gracious business, had thanks of it next the king; and that there were some commission under his Majesty's sign manual to deal with some selected persons of the old company, and to take their answers and consent under their hands; and that the procuring the commission, and the procuring their offers to be accepted, were your lordship's work.

In this treaty my lord chancellor must by no means be left out; for he will moderate well, and aimeth at his Majesty's ends.

Mr. Solicitor is not yet returned, but I look for him presently. I rest

Your lordship's true and most devoted servant,

FR. BACON.

Monday, October 14,
at 10 of the clock.

* Stephens's First Collection, p. 181.

CLXII. REASONS WHY THE NEW COMPANY IS NOT TO BE TRUSTED AND CONTINUED WITH THE TRADE OF CLOTHS.†

First, The company consists of a number of young men and shop-keepers, which not being bred in the trade, are fearful to meddle with any of the dear and fine cloths, but only meddle with the coarse cloths, which is every man's skill; and besides, having other trades to live upon, they come in the sunshine so long as things go well, and as soon as they meet with any storm or cloud, they leave trade, and go back to shop-keeping; whereas the old company were beaten traders, and having no other means of living but that trade, were fain to ride out all accidents and difficulties, which, being men of great ability, they were well able to do.

Secondly, These young men being the major part, and having a kind of dependence upon alderman Cockain, they carry things by plurality of voices; and yet those few of the old company, which are amongst them, do drive almost three parts of the trade: and it is impossible things should go well, where one part gives the vote, and the other doth the work; so that the execution of all things lies chiefly upon them that never consented, which is merely *motus violentus*, and cannot last.

Thirdly, The new company make continually such new springing demands, as the state can never be secure nor trust to them; neither doth it seem that they do much trust themselves.

Fourthly, The present stand of cloth at Blackwell-hall, which is that that presseth the state most, and is provided for but by a temporary and weak remedy, is supposed would be presently at an end, upon the revivor of the old; in respect that they are able men and united amongst themselves.

Fifthly, In these cases *opinio est veritate major*, and the very voice and expectation of revivor of the old

† Stephens's First Collection, p. 182.

company will comfort the clothiers, and encourage them not to lay down their looms.

Sixthly, The very Flemings themselves, in regard of the pique they have against the new company, are like to be more pliant and tractable towards his Majesty's ends and desires.

Seventhly, Considering the business hath not gone on well, his Majesty must either lay the fault upon the matter itself, or upon the persons that have managed it; wherein the king shall best acquit his honour, to lay it where it is indeed; that is, upon the carriage and proceedings of the new company, which have been full of uncertainty and abuse.

Lastly, The subjects of this kingdom generally have an ill taste and conceit of the new company, and therefore the putting of them down will discharge the state of a great deal of envy.

CLXIII. TO THE LORD VISCOUNT VILLIERS.*

My very good lord,

Now that the king hath received my opinion, with the judges' opinion, unto whom it was referred, touching the proposition for inns, in point of law; it resteth that it be molded and carried in that sort, as it may pass with best contentment and convenience. Wherein I that ever love good company, as I was joined with others in the legal point, so I desire not to be alone touching the conveniency. And therefore I send your lordship a form of warrant for the king's signature, whereby the framing of the business, and that which belongeth to it, may be referred to myself with serjeant Montague and serjeant Finch, and though Montague should change his place, that alteration hurteth not the business, but rather helpeth it. And because the inquiry and survey touching inns will require much attendance and charge, and the making of the licences, I shall think fit, when that question cometh to me, to be † to the justice of assise, and not to those that follow this business: therefore his Majesty may be pleased to consider what proportion or dividend shall be allotted to Mr. Mompesson, and those that shall follow it at their own charge, which useth in like ease to be a fifth.‡ So I ever rest

Your lordship's true and most devoted servant,

FR. BACON.

Nov. 13, 1616.

CLXIV. TO THE LORD VISCOUNT VILLIERS.§

My very good lord,

I think his Majesty was not only well advised, but well inspired, to give order for this same wicked child of Cain, Bertram, to be examined before he was farther proceeded with. And I for my part, before I had received his Majesty's pleasure by my lord chamberlain, went thus far; that I had appointed him to be farther examined, and also had taken order with Mr. Solicitor that he should be provided to make some declaration at his trial in some solemn fashion, and not to let such a strange murder pass, as if it had been but a horse-stealing.

But upon his Majesty's pleasure signified, I forthwith caused the trial to be staid, and examined the party according to his Majesty's questions; and also sent for the principal counsel in the cause, wherenpon Sir John Tyndal's report was grounded, to discern the justice or iniquity of the said report, as his Majesty likewise commanded.

I send therefore the case of Bertram truly stated and collected, and the examination taken before myself and Mr. Solicitor; whereby it will appear to his Majesty that Sir John Tyndal, as to his cause, is a kind of martyr: for if ever he made a just report in his life, this was it.

But the event since all this is, that this Bertram being, as it seemeth, indurate, or in despair, hath hanged himself in prison; of which accident, as I am sorry, because he is taken from example and public justice, so yet I would not for any thing it had been before his examination; so that there may be otherwise some occasion taken, either by some declaration in the king's bench upon the return of the coroners' inquest, or by some printed book of the fact, or by some other means, whereof I purpose to advise with my lord chancellor, to have both his Majesty's royal care, and the truth of the fact, with the circumstances, manifested and published. ‖

For the taking of a toy of my lord chief justice before he was placed, it was done before your letter came; and on Tuesday Heath and Shute shall be admitted and all perfected.

My lord chancellor proposeth to be at the hall to-morrow, to give my lord chief justice his oath; and I pray God it hurt him not this cold weather. God ever prosper you.

Your true and most devoted servant,

FR. BACON.

Sunday night, Nov. 17, 1616.

* Stephens's First Collection, p. 184.

† Here (referred) or some word of the like import is omitted.

‡ I suppose after the judges and attorney-general had given the opinion above mentioned, that a patent was soon granted for licensing of common inns; whence Sir Giles Mompesson levied several sums by fines, and annual rent, and from alehouses also by a subsequent patent: proceeding therein with so much rigour, that it was complained of in the parliament which begun in 1620-21, as one of the great grievances of the nation; the patent declared illegal, and recalled by the king's proclamation; Mompesson and Michel, the chief projectors of this and some other oppressions, severely censured according to their demerits: the manner of which may be seen in the journals of that parliament, and the histories of those times. *Stephens.*

§ Stephens's First Collection, p. 186.

‖ This Bertram, who according to Camden in his Annals of king James, was a grave man of above 70 years of age, and of a clear reputation, pistolled Sir John Tyndal, a master in chancery, on the 12th of November, for making a report against him, in a cause where the sum contended for did not exceed 200*l.*

By his examination taken the 16th, he confessed it to be as foul a murder as ever was: under the sense of which he hanged himself the next day. *Stephens.*

CLXV. TO SIR FRANCIS BACON, HIS MAJESTY'S ATTORNEY-GENERAL.*

SIR,

I HAVE acquainted his Majesty with your letter, and the other papers enclosed, who liketh very well of the course you purpose touching the manifest to be published of Bertram's fact; and will have you, according to your own motion, advise with my lord chancellor of the manner of it. His Majesty's pleasure likewise is, that according to the declaration he made before the lords of his council at Whitehall, touching the review of my lord Coke's Reports, you draw a warrant ready for his signature, directed to those judges whom he then named to that effect, and send it speedily to him to be signed, that there may be a despatch of that business before the end of this term. And so I rest

Your faithful friend at command,

GEORGE VILLIERS.

Newmarket, Nov. 19, 1616.

THE CASE OF JOHN BERTRAM.

LEONARD Chamberlayne died intestate without issue, and left a sister married to Bertram, and a niece afterwards married to Sir George Simeon.

The niece obtained letters of administration, and did administer; but afterwards upon appeal, Bertram in the right of his wife, that was the sister, obtained the former administration to be repealed, and new letters of administration to be committed to Bertram and his wife, because the sister was nearer of kin than the niece.

Thereupon Bertram brings his bill in chancery against the first administratrix, to discover the true state of the intestate, and to have it set over unto him, being the rightful administrator; and this cause coming to hearing, it did appear that there was a debt of 200*l.* owing by one Harris to the intestate: whereupon it was decreed, that the debt of Harris by bond should be set over to Bertram, and likewise that all other moneys, debts, and bonds, should be assigned over to him. In the penning of this decree there was an error or slip; for it was penned that a debt by Harris by a bond of 200*l.* should be set over, whereas the proofs went plainly that it was but 200*l.* *in toto* upon divers specialties and writings. Upon this pinch and advantage Bertram moved still that the bond of 200*l.* should be brought in, and at last the defendant alleging that there was no such bond, the court ordered that the money itself, namely, 200*l.* should be brought in: which was done accordingly, and soon after by order of the court it was paid over to Bertram.

When Bertram had this 200*l.* in his purse, he would needs surmise, that there was another 200*l.* due by Harris upon account, besides the 200*l.* due by one singular bond, and still pressed the words of the decree, which mentions a bond, and thereupon got his adversary Sir George Simeon committed. Afterwards it was moved upon Simeon's part, that there was only one debt of 200*l.* and that the decree was mistaken in the penning of it, and so must needs be understood, because the decree must be upon the proofs; and all the proofs went but upon the 200*l.* *in toto*, and not upon any particular bond: whereupon my lord chancellor referred the consideration of the proofs, and the comparing of them with the decree, to Sir John Tyndal and doctor Amye.

They reported, which was the killing report, that upon the proofs there was but one 200*l.* in all, and that had been eagerly followed by Bertram, and that Simeon had suffered by error and mistaking, and that it were time he were released, which was a most just and true report, and yet it concluded, as is used in such cases, that they referred it to the better judgment of the court; and the court upon the reading of that report gave order that the plaintiff Bertram should show cause by a day why Simeon should not be enlarged, and the plaintiff Bertram dismissed. And before the day prefixed to show cause, Bertram pistolled Sir John Tyndal.

CLXVI. TO THE LORD VISCOUNT VILLIERS.†

MY VERY GOOD LORD,

I AM glad to find your lordship mindful of your own business, and if any man put you in mind of it, I do not dislike that neither; but your lordship may assure yourself, in whatsoever you commit to me your lordship's farther care shall be needless: for I desire to take nothing from my master and my friend but care; and therein I am so covetous, as I will leave them as little as may be.

Now therefore things are grown to a conclusion, touching your land and office, I will give your lordship an account of that which is passed; and acquaint your judgment, which I know to be great and capable of any thing, with your own business; that you may discern the difference between doing things substantially, and between shuffling and talking: and first for your patent.

First, It was my counsel and care that your book should be fee-farm, and not fee-simple; whereby the rent of the crown in succession is not diminished, and yet the quantity of the land, which you have upon your value, is enlarged; whereby you have both honour and profit.

Secondly, By the help of Sir Lionel Cranfield I advanced the value of Sherbourn from 26,000*l.* (which was thought and admitted by my lord treasurer and Sir John Decombe, as a value of great favour to your lordship, because it was a thousand pound more than it was valued at to Somerset) to thirty-two thousand pounds; whereby there were six thousand pounds gotten, and yet justly.

Thirdly, I advised the course of rating Hartington at a hundred years' purchase, and the rest at

* Stephens's Second Collection, p. 23.

† Stephens's First Collection, p. 108.

thirty-five years' purchase fee-farm, to be set down and expressed in the warrant; that it may appear and remain of record, that your lordship had no other rates made to you in favour, than such as purchasers upon sale are seldom drawn into; whereby you have honour.

Fourthly, That lease to the feoffees, which was kept as a secret in the decke, and was not only of Hartington, but also of most of the other particulars in your book, I caused to be throughly looked into and provided for; without which your assurance had been nothing worth: and yet I handled it so, and made the matter so well understood, as you were not put to be a suitor to the prince for his good will in it, as others ignorantly thought you must have done.

Fifthly, The annexation,* which no body dreamt of, and which some idle bold lawyer would perhaps have said had been needless; and yet is of that weight, that there was never yet any man that would purchase any such land from the king, except he had a declaration to discharge it, I was provident to have it discharged by declaration.

Sixthly, Lest it should be said that your lordship was the first, except the queen and the prince, that brake the annexation, upon a mere gift; for that others had it discharged only upon sale, which was for the king's profit and necessity; I found a remedy for that also, because I have carved it in the declaration, as that this was not gift to your lordship, but rather a purchase and exchange, as indeed it was, for Sherbourn.

Seventhly and lastly, I have taken order, as much as in me was, that your lordship in these things which you have passed be not abused, if you part with them: for I have taken notes in a book of their values and former offers.

Now for your office.

First, Whereas my lord Teynham, at the first, would have had your lordship have had but one life in it, and he another; and my lord treasurer, and the solicitor, and Deecombe, were about to give way to it: I turned utterly that course, telling them that you were to have two lives in it, as well as Somerset had.

Secondly, I have accordingly, in the assurance from your deputies, made them acknowledge the trust, and give security not only for your lordship's time, but after; so as you may dispose, if you should die, which I would be sorry to live to, the profits of the office by your will, or otherwise, to any of your friends for their comfort and advancement.

Thirdly, I dealt so with Whitlocke as well as Heath, as there was no difficulty made of the surrender.

Lastly, I did cast with myself, that if your lordship's deputies had come in by Sir Edward Coke, who was tied to Somerset, it would have been subject to some clamour from Somerset, and some question what was forfeited by Somerset's attainder, being but of felony, to the king; but now they coming in from a new chief justice, all is without question or scruple.

Thus your lordship may see my love and care towards you, which I think infinitely too little in respect of the fulness of my mind; but I thought good to write this, to make you understand better the state of your own business, doing by you as I do by the king; which is, to do his business safely and with foresight, not only of to-morrow or next day, but afar off;† and not to come fiddling with a report to him what is done every day, but to give him up a good sum in the end.

I purpose to send your lordship a kalendar fair written of those evidences which concern your estate, for so much as have passed my hands; which in truth are not fit to remain with solicitors, no nor with friends, but in some great cabinet to be made for that purpose.

All this while I must say plainly to your lordship, that you fall short for your present charge, except you play the good husband; for the office of Teynham is in reversion; Darcey's land is in reversion; all the land in your books is but in reversion, and yields you no present profit, because you pay the fee-farm. So as you are a strange heteroclite in grammar, for you want the present tense; many verbs want the præterperfect tense, and some the future tense, but none want the present tense. I will hereafter write to your lordship, what I think of for that supply; to the end that you may, as you have begun to your great honour, despise money, where it crosseth reason of state or virtue. But I will trouble you no farther at this time. God ever preserve and prosper your lordship.

Your true and most devoted servant,

Nov. 29, 1616. FR. BACON.

CLXVII. TO THE LORD VISCOUNT VILLIERS, ABOUT DUELS.‡

My very good Lord,

I delivered the proclamation for cloth to secretary Winwood on Saturday, but he keepeth it to carry it down himself, and goeth down, as I take it, to-day. His Majesty may perceive by the docket of the proclamation, that I do not only study, but act that point touching the judges, which his Majesty commandeth in your last.

Yesterday was a day of great good for his Majesty's service, and the peace of this kingdom concerning duels, by occasion of Darcy's case. I spake

* The annexation; by which lands, &c. were united or annexed to the duchies of Cornwall and Lancaster.

† Certainly the wisdom of foresight and prevention is far above the wisdom of remedy; and yet I fear the following observation Sir Francis Bacon makes in his essay of empire, concerning the times in or near which he lived, hath been verified too much in others. "This is true, that the wisdom of all these later times in princes' affairs, is rather fine delivories or shiftings of dangers and mischiefs when they are near, than solid or grounded courses to keep them aloof. But this is but to try masteries with fortune; and let men beware how they neglect and suffer matter of trouble to be prepared; for no man can forbid the spark, nor tell whence it may come."

‡ Stephens's First Collection, p. 192.

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big, and, publishing his Majesty's strait charge to me, said, it had struck me blind, as in point of duels and cartels, &c. I should not know coronet from a hatband. I was bold also to declare how excellently his Majesty had expressed to me a contemplation of his touching duels; that is, that when he came forth and saw himself princely attended with goodly nobles and gentlemen, he entered into the thought, that none of their lives were in certainty not for twenty-four hours from the duel; for it was but a heat or a mistaking, and then a lie, and then a challenge, and then life: saying, that I did not marvel, seeing Xerxes shed tears, to think none of his great army should be alive once within a hundred years, his Majesty were touched with compassion to think that not one of his attendance bnt might be dead within twenty-four hours by the duel. This I write because his Majesty may be wary what he saith to me, in things of this nature, I being so apt to play the blab. In this also I forgot not to prepare the judges, and wish them to profess, and as it were to denounce, that in all cases of duel capital before them, they will use equal severity towards the insolent murder by the duel, and the insidious murder; and that they will extirpate that difference out of the opinions of men; whieh they did excellent well.

I must also say, that it was the first time that I heard my lord of Arundel speak in that place; and I do assure your lordship he doth excellently become the court; he speaketh wisely and weightily, and yet easily and clearly, as a great nobleman should do.*

There hath been a proceeding in the king's bench against Bertram's keeper, for misdemeanor, and I have put a little pamphlet, prettily penned by one Mr. Trotte, that I set on work, touching the whole business to the press, by my lord chancellor's advice.

I pray God direct his Majesty in the cloth business, that that thorn may be once out of our sides. His Majesty knoweth my opinion *ab antiquo*. Thanks be to God for your health, and long may you live to do us all good. I rest

Your true and most devoted servant,

FR. BACON.

A PROPOSITION FOR THE REPRESSING OF SINGULAR COMBATS OR DUELS, IN THE HAND-WRITING OF SIR FRANCIS BACON.†

FIRST, for the ordinance which his Majesty may establish herein, I wish it may not look back to any offence past, for that strikes before it warns. I wish also it may be declared to be temporary, until a parliament; for that will be very acceptable to the parliament; and it is good to teach the parliament to work upon an edict or proclamation preecdent.

For the manner, I should think fit there be published a grave and severe proclamation, induced by the overflow of the present mischief.

For the ordinance itself: first, I consider that offence hath vogue only amongst noble persons, or persons of quality. I consider also that the greatest honour for subjects of quality in a lawful monarchy, is to have access and approach to their sovereign's sight and person, which is the fountain of honour: and though this be a comfort all persons of quality do not use; yet there is no good spirit but will think himself in darkness, if he be debarred of it. Therefore I do propound, that the prineipal part of the punishment be, that the offender, in the cases hereafter set down, be banished perpetually from approach to the courts of the king, queen, or prince.

Secondly, That the same offender receive a striet proseeution by the king's attorney, *ore tenus*, in the star-chamber: for the faet being notorious, will always be eonfessed, and so made fit for an *ore tenus*. And that this prosecution be without respect of persons, be the offender never so great; and that the fine set be irremissible.

Lastly, For the eauses, that they be these following:

1. Where any singular combat, upon what quarrel soever, is aeted and performed, though death do not ensue.

2. Where any person passeth beyond the seas, with purpose to perform any singular combat, though it be never aeted.

3. Where any person sendeth a challenge.

4. Where any person aeeepteth a challenge.

5. Where any person earrieth or delivereth a challenge.

6. Where any person appointeth the field, directly or indirectly, although it be not upon any cartel or challenge in writing.

7. Where any person aeeepteth to be second in any quarrel.

CLXVIII. TO THE LORD VISCOUNT VILLIERS.‡

IT MAY PLEASE YOUR LORDSHIP,

I PRAY let his Majesty understand, that although

* My lord of Arundel descended from the noble family of the Howards; his grandfather the duke of Norfolk losing his life upon the account of Mary queen of Scots, and his father suffering some years' imprisonment under sentence of condemnation: he was restored in blood, and to the titles of Arundel and Surry, I Jac. made a privy counsellor on the 25th of July, 1616, and afterwards earl marshal of England, and general of the army sent against the Scots by king Charles I. But about the beginning of our civil wars he retired into Italy, where he had spent part of his youth, and returned to the religion he had professed, dying at Padua in 1646. He was a gentleman of a noble aspect, and of a noble nature, a great virtuoso and antiquary, who with much care and cost procured many valuable antiquities and inscriptions to be brought from Asia, Greece, and Italy into England, and placed them in or near his garden at Arundel-house in the Strand; several of which were very generously presented by his grandson the duke of Norfolk to the university of Oxford, where they are among others of the famous Seldeu fixed to the walls enclosing the Theatre. It were to be wished, that the great number of ancient statues which adorned his house and gardens, and have since been much neglected, had met with as safe a repository. The eloquence which Sir Francis Bacon doth here commend in this lord, is much the same which in the beginning of his "Advancement of Learning" he doth attribute to the king, in the words of Tacitus, concerning Augustus Cæsar: "Augusto profluens, et quæ principem deceret eloquentia fuit."

† On occasion of this letter, in which is mentioned Sir Francis Bacon's speech against duels, it may not be improper to insert here this curious paper from Sir David Dalrymple's Memorials and Letters, p. 51.

‡ Stephens's Second Collection, p. 32.

my lord chancellor's answer touching the dismission of the Farmers' cause, was full of respect and duty, yet I would be glad to avoid an express signification from his Majesty, if his Majesty may otherwise have his end. And therefore I have thought of a course, that a motion be made in open court, and that thereupon my lord move a compromise to some to be named on either part, with bond to stand to their award. And as I find this to be agreeable to my lord chancellor's disposition, so I do not find but the Farmers and the other party are willing enough towards it. And therefore his Majesty may be pleased to forbear any other letter or message touching that business. God ever keep your lordship.

Your lordship's true and most devoted servant,

FR. BACON.

Jan. 23, 1616.

CLXIX. THIS LETTER WAS WRITTEN TO THE EARL OF BUCKINGHAM, ON THE SAME DAY SIR FRANCIS BACON WAS DECLARED LORD KEEPER OF THE GREAT SEAL.*

MY DEAREST LORD,

IT is both in care and kindness, that small ones float up to the tongue, and great ones sink down into the heart in silence. Therefore I could speak little to your lordship to-day, neither had I fit time: but I must profess thus much, that in this day's work you are the truest and perfectest mirror and example of firm and generous friendship that ever was in court. And I shall count every day lost, wherein I shall not either study your well doing in thought, or do your name honour in speech, or perform you service in deed. Good my lord, account and accept me,

Your most bounden and devoted friend and servant of all men living,

FR. BACON, C. S.

March 7, 1616.

CLXX. TO THE EARL OF BUCKINGHAM.†

MY SINGULAR GOOD LORD,

WHEN I heard here your lordship was dead, I thought I had lived too long. That was, to tell your lordship truly the state of my mind, upon that report. Since, I hear it was an idle mistaking of my lord Evers for my lord Villiers. God's name be blessed, that you are alive to do infinite good, and not so much as sick or ill disposed for any thing I now hear.

I have resigned the prince's seal, and my lord Hobart is placed. I made the prince laugh, when I told him I resigned it with more comfort than I received it; he understanding me that I had changed for a better: but after I had given him that thought, I turned it upon this, that I left his state and business in good case, whereof I gave him a particular account.

The queen calleth upon me for the matter of her house, wherein your lordship and my lord chamberlain and I dealt, and received his Majesty's direction, so that I shall prepare a warrant first to my lord treasurer and Mr. Chancellor, for that is the right way, to advise how to settle it by assignment, in case she survive his Majesty, which I hope in God she shall not.

Her desire was expressly and of herself, that when I had prepared a warrant to be sent to his Majesty, I should send it by your lordship's hands.

We sit in council, that is all I can yet say; Sir John Denham is not come, upon whose coming the king shall have account of our consultations touching Ireland, which we cannot conclude till we have spoken with him. God ever preserve and prosper you.

It grieveth me much that I cannot hear enough of his Majesty's good disposition of health, and his pleasures, and other ordinary occurrences of his journey. I pray your lordship will direct Mr. Packer to write to me some time of matters of that kind; I have made the like request of Sir Edward Villiers, by whom I write this present, to whose good affection I think myself beholden, as I do also esteem him much for his good parts, besides his nearness to your lordship, which bindeth me above all.

Your Lordship's most faithful and devoted friend and servant,

FR. BACON, C. S.

7 Apr. 1617.

CLXXI. TO THE RENOWNED UNIVERSITY OF CAMBRIDGE, HIS DEAR AND REVEREND MOTHER.‡

I AM debtor to you for your letters, and of the time likewise, that I have taken to answer them. But as soon as I could choose what to think on, I thought good to let you know; that although you may err much in your valuation of me, yet you shall not be deceived in your assurance: and for the other part also, though the manner be to mend the picture by the life; yet I would be glad to mend the life by the picture, and to become, and be, as you express me to be. Your gratulations shall be no more welcome to me, than your business or occasions; which I will attend; and yet not so, but that I shall endeavour to prevent them by my care of your good. And so I commend you to God's goodness.

Your most loving and assured friend and son,

FR. BACON, C. S.

Gorhambury, Apr. 12, 1617.

CLXXII. TO THE EARL OF BUCKINGHAM.§

MY SINGULAR GOOD LORD,

I AM now for five or six days retired to my house

* Stephens's First Collection, p. 194.
† Stephens's Second Collection, p. 33.
‡ Rawley's Resuscitatio.
§ Stephens's First Collection, p. 196.

in the country: for I think all my lords are willing to do as scholars do, who though they call them holy-days, yet they mean them play-days.

We purpose to meet again on Easter-Monday, and go all to the spital sermon for that day, and therein to revive the ancient religious manner, when all the council used to attend those sermons, which some neglect in queen Elizabeth's time, and his Majesty's great devotion in the due hearing of sermons himself with his council at the court, brought into desuetude. But now our attendance upon his Majesty, by reason of his absence, cannot be, it is not amiss to revive.

I perceive by a letter your lordship did write some days since to my lord Brackley, that your lordship would have the king satisfied by precedents, that letters patents might be of the dignity of an earldom without delivery of the patent by the king's own hand, or without the ordinary solemnities of a creation. I find precedents somewhat tending to the same purpose, yet not matching fully. But howsoever let me, according to my faithful and free manner of dealing with your lordship, say to you, that since the king means it, I would not have your lordship, for the satisfying a little trembling or panting of the heart in my lord or lady Brackley, to expose your lordship's self, or myself, whose opinion would be thought to be relied upon, or the king our master, to envy with the nobility of this realm; as to have these ceremonies of honour dispensed with, which in conferring honour have used to be observed, like a kind of *doctor Bullatus* without the ceremony of a commencement: the king and you know I am not ceremonious in nature, and therefore you may think, if it please you, I do it in judgment. God ever preserve you.

Your lordship's most faithful and devoted friend and servant,

FR. BACON, C. S.

I purpose to send the precedents themselves by my lord of Brackley; but I thought fit to give you some taste of my opinion before.

Gorhambury, Apr. 13, 1617.

CLXXIII. TO THE EARL OF BUCKINGHAM.*

My singular good lord,

I pray your good lordship to deliver to his Majesty the enclosed.

I send your lordship also the warrant to my lord treasurer and Mr. Chancellor of the exchequer for the queen's† house: it is to come again to the king, when the bill is drawn for the letters patents; for this is only the warrant to be signed by his Majesty.

I asked the queen, whether she would write to your lordship about it; her answer was very modest and discreet, that because it proceeded wholly from his Majesty's kindness and goodness, who had referred it, it was not so fit for her to write to your lordship for the despatch of it, but she desired me to thank your lordship for your former care of it, and to desire you to continue it: and withal she desireth your lordship not to press his Majesty in it, but to take his best times. This answer, because I like it so well, I write to you at large; for other matters I will write by the next. God ever prosper you and preserve you.

Your lordship's most faithful and devoted friend and servant,

FR. BACON, C. S.

London, 19 Apr. 1617.

* Stephens's Second Collection, p. 37.
† Somerset-House.

CLXXIV. TO MR. MATTHEW, IN REFLECTION UPON SOME ASTRONOMERS IN ITALY.‡

Sir,

I write to you chiefly now, to the end, that by the continuance of my acquaintance with you by letters, you may perceive how much I desire, and how much I do not despair of the recontinuance of our acquaintance by conversation. In the mean time I wish you would desire the astronomers of Italy to amuse us less than they do with their fabulous and foolish traditions, and come nearer to the experiments of sense; and tell us, that when all the planets, except the moon, are beyond the line in the other hemisphere for six months together, we must needs have a cold winter, as we saw it was the last year. For understanding that this was general over all these parts of the world; and finding that it was cold weather with all winds, and namely west-wind, I imagined there was some higher cause of this effect; though yet I confess I thought not that ever I should have found that cause so palpable a one as it proved; which yet, when I came quickly afterwards to observe, I found also very clearly, that the summer must needs be cold too; though yet it were generally thought, that the year would make a shift to pay itself, and that we should be sure to have heats for our cold. You see, that though I be full of business, yet I can be glad rather to lay it all aside, than to say nothing to you. But I long much more to be speaking often with you, and I hope I shall not long want my wish.

‡ Sir Tobie Matthew's Collection of Letters, p. 25.

CLXXV. TO THE KING, ABOUT THE SPANISH MATCH.§

It may please your most excellent Majesty,

Mr. Vice-Chamberlain hath acquainted myself and the rest of the commissioners for the marriage with Spain, which are here, with your Majesty's instructions, signed by your royal hands, touching that point of the suppressing of pirates, as it hath relation to his negotiation; whereupon we met yesterday at my lord admiral's at Chelsea, because

§ Stephens's First Collection, p. 197.

we were loth to draw my lord into the air, being but newly upon his recovery.*

We conceive the parts of the business are four: the charge; the confederations, and who shall be solicited or retained to come in; the forces and the distributions of them; and the enterprise. We had only at this time conference amongst ourselves, and shall appoint, after the holy-days, times for the calling before us such as are fit, and thereupon perform all the parts of your royal commandments.

In this conference I met with somewhat which I must confess was altogether new to me, and opened but darkly neither; whereof I think Mr. Vice-Chamberlain will give your Majesty some light, for so we wished. By occasion whereof I hold it my duty, in respect of the great place wherein your Majesty hath set me, being only made worthy by your grace, which maketh it decent for me to counsel you *ad summas rerum*, to intimate or represent to your Majesty thus much.

I do foresee, in my simple judgment, much inconvenience to ensue, if your Majesty proceed to this treaty with Spain, and that your council draw not all one way. I saw the bitter fruits of a divided council the last parliament; I saw no very pleasant fruits thereof in the matter of the cloth. This will be of equal, if not more inconvenience; for whersoever the opinion of your people is material, as in many cases it is not, there, if your council be united, they shall be able almost to give law to opinion and rumour; but if they be divided, the infusion will not be according to the strength and virtue of the votes of your council, but according to the aptness and inclination of the popular. This I leave to your Majesty in your high wisdom to remedy: only I could wish that when Sir John Digby's instructions are perfected, and that he is ready to go, your Majesty would be pleased to write some formal letter to the body of your council, if it shall be in your absence, signifying to them your resolution in general, to the end, that when deliberation shall be turned into resolution, no man, howsoever he may retain the inwardness of his opinion, may be active *in contrarium*.

The letters for my lords of the council with your Majesty, touching the affairs of Ireland, written largely and articulately, and by your Majesty's direction, will much facilitate our labours here: though there will not want matter of consultation thereupon. God ever preserve your Majesty safe and happy.

Your Majesty's most devoted and obliged servant,

London, April 19, 1617. FR. BACON, C. S.

CLXXVI. TO THE EARL OF BUCKINGHAM.†

MY SINGULAR GOOD LORD,

I SEND your lordship, according to the direction of your letter, a note of the precedents that I find in my lord Brackley's business; which do rather come near the case than match it. Your lordship knoweth already my opinion, that I would rather have you constant in the matter, than instant for the time.

I send also enclosed an account of council business by way of remembrance to his Majesty, which it may please you to deliver to him.

The queen returneth her thanks to your lordship for the despatch of the warrant touching her house: I have not yet acquainted the lord treasurer and chancellor of the exchequer with it; but I purpose to-morrow to deliver them the warrant, and to advise with them for the executing of the same.

I have received the king's letter with another from your lordship, touching the cause of the officers, and Sir Arthur Ingram, whereof I will be very careful to do them justice.

Yesterday I took my place in chancery, which I hold only for the king's grace and favour, and your constant friendship. There was much ado, and a great deal of world; but this matter of pomp, which is heaven to some men, is hell to me, or purgatory at least. It is true, I was glad to see that the king's choice was so generally approved; and that I had so much interest in men's good will and good opinions, because it maketh me the fitter instrument to do my master service and my friend also.

After I was set in chancery, I published his Majesty's charge which he gave me when he gave me the seal; and what rules and resolutions I had taken for the fulfilling his commandments. I send your lordship a copy of that I said. My lord Hay coming to take his leave of me two days before, I told him what I was meditating, and he desired me to send him some remembrance of it; and so I could not but send him another copy thereof. Men tell me it hath done the king a great deal of honour; insomuch that some of my friends that are wise men and no vain ones, did not stick to say to me, that there was not these seven years such a preparation for a parliament; which was a commendation, I confess, pleased me well. I pray take some fit time to show it his Majesty, because if I misunderstood him in any thing, I may amend it, because I know his judgment is higher and deeper than mine.

I take infinite contentment to hear his Majesty is in great good health and vigour; I pray God preserve and continue it. Thus wishing you well above all men living, next my master and his: I rest

Your true and devoted friend and servant,

FR. BACON, C. S.

Dorset-house, which putteth me in mind to thank your lordship, for your care of me touching York-house, May 8, 1617.

* Charles lord Howard of Effingham and earl of Nottingham, was, as Sir Robert Naunton observes, as goodly a gentleman for person as the times had eny; which is confirmed by Mr. Osbourn, although his eyes met not with him till he was turned towards the point of eighty. He being also brave, faithful, and diligent, commended the fleet as lord high admiral upon several occesions, particularly ageinst the Spanish Armeda, 1588. But in the latter end of the year 1618, he surrendered this honourable place to the king, who conferred it upon the marquis of Buckingham, and died in the year 1624, and of his age the 88th. *Stephens*

† Stephens's First Collection, p. 200.

CLXXVII. AN ACCOUNT OF COUNCIL BUSINESS, AND OTHER MATTERS COMMITTED TO ME BY HIS MAJESTY.*

First, for May-day; at which time there was great apprehension of tumult by prentices and loose people; there was never such a still. The remedies that did the effect were three:

First, the putting in muster of the trained bands and military bands in a brave fashion that way. Next, the laying a strait charge upon the mayor and aldermen for the city, and justices of the peace for the suburbs, that the prentices and others might go abroad with their flags and other gauderies, but without weapon of shot and pike, as they formerly took liberty to do: which charge was exceeding well performed and obeyed. And the last was, that we had, according to our warrant dormant, strengthened our commissions of the peace in London and Middlesex, with new clauses of lieutenancy; which as soon as it was known abroad, all was quiet by the terror it wrought. This I write, because it maketh good my farther assurance I gave his Majesty at his first removes, that all should be quiet; for which I received his thanks.

For the Irish affairs, I received this day his Majesty's letter to the lords, which we have not yet opened, but shall sit upon them this afternoon. I do not forget, besides the points of state, to put my lord treasurer in remembrance, that his Majesty laid upon him the care of the improvement of the revenue of Ireland by all good means, of which I find his lordship very careful, and I will help him the best I can.

The matter of the revenue of the recusants here in England, I purpose to put forward by a conference with my lord of Canterbury, upon whom the king laid it, and upon secretary Winwood; and, because it is matter of the exchequer, with my lord treasurer and Mr. Chancellor; and after to take the assistance of Mr. Attorney, and the learned counsel; and when we have put it in a frame, to certify his Majesty.

The business of the pirates is, I doubt not, by this time come to his Majesty, upon the letters of us the commissioners, whereof I took special care; and I must say, I find Mr. Vice-Chamberlain a good able man with his pen. But to speak of the main business, which is the match with Spain, the king knows my mind by a former letter; that I would be glad it proceeded with an united council; not but that votes and thoughts are to be free: but yet after a king hath resolved, all men ought to cooperate, and neither to be active nor much locative *in oppositum*; especially in a case where a few dissenting from the rest, may hurt the business *in foro famæ*.

Yesterday, which was my weary day, I bid all the judges to dinner, which was not used to be, and entertained them in a private withdrawing chamber, with the learned counsel. When the feast was passed, I came amongst them, and sat me down at the end of the table, and prayed them to think I was one of them, and but a foreman. I told them I was weary, and therefore must be short, and that I would now speak to them upon two points. Whereof the one was, that I would tell them plainly, that I was firmly persuaded, that the former discords and differences between the chancery and other courts were but flesh and blood; and that now the men were gone, the matter was gone; and that for my part, as I would not suffer any the least diminution or derogation from the ancient and due power of the chancery, so if any thing should be brought to them at any time, touching the proceedings of the chancery, which did seem to them exorbitant or inordinate, that they should freely and friendly acquaint me with it, and we should soon agree; or if not, we had a master that could easily both discern and rule. At which speech of mine, besides a great deal of thanks and acknowledgment, I did see cheer and comfort in their faces, as if it were a new world.

The second point was, that I let them know how his Majesty, at his going, gave me charge to call and receive from them the accounts of their circuits, according to his Majesty's former prescript, to be set down in writing; and that I was to transmit the writings themselves to his Majesty; and accordingly as soon as I have received them I will send them to his Majesty.

Some two days before I had a conference with some judges, not all, but such as I did choose, touching the high commission, and the extending of the same in some points; which I see I shall be able to despatch by consent, without his majesty's farther trouble.

I did call upon the committees also for the proceeding in the purging of Sir Edward Coke's "Reports," which I see they go on with seriously.†

Thanks be to God, we have not much to do for

* Stephens's First Collection, p. 202.

† During the time that my lord chief justice Coke lay under the displeasure of the court, some information was given to the king, that he having published eleven books of *Reports*, had written many things against his Majesty's prerogative. And being commanded to explain some of them, my lord chancellor Ellesmere doth thereupon, in his letter of 22 October 1616, write thus to the king: "According to your Majesty's directions signified unto me by Mr. Solicitor, I called the lord chief justice before me on Thursday the 17th instant, in presence of Mr. Attorney, and others of your learned counsel. I did let him know your Majesty's acceptance of the few animadversions, which upon review of his own labours he had sent, though fewer than you expected, and his excuses other than you expected." And did at the same time inform him, that his Majesty was dissatisfied with several other passages therein; and those not of the principal points of the cases judged, but delivered by way of expatiation, and which might have been omitted without prejudice to the judgment; of which sort the attorney and solicitor-general did for the present only select five, which being delivered to the chief justice on the 17th of October, he returns his answers at large upon the 21st of the same month, the which I have seen under his own hand. 'Tis true the lord chancellor wished he might have been spared all service concerning the chief justice, as remembering the fifth patition of "dimitte nobis debita nostra, etc." Insomuch that though a committee of judges was appointed to consider these books, yet the matter seems to have slept, till after Sir Francis Bacon was made lord keeper, it revived, and two judges more were added to the former. Whereupon Sir Edward Coke doth by his letter make his humble suit to the earl of Buckingham, 1. That if his Majesty shall not be satisfied with his former offer, namely, by the advice of the judges to explain and publish those points, so as no shadow may remain against his prerogative, that then all the judges of England may be called thereto. 2. That they might certify also what cases he had published for his Majesty's prerogative and benefit, for the good of the church, and quiet-

matters of council, and I see now that his Majesty is as well able by his letters to govern England from Scotland, as he was to govern Scotland from England.

CLXXVIII. A NOTE OF SOME PRECEDENTS AS COME NEAREST THE CASE OF THE LORD BRACKLEY: REFERRED TO IN THE FOREGOING LETTER.*

The lord Hay was created baron of Sawley, 28 *Junii* 13 *Regis*, without the ceremony of robing, as I take it, but then the patent, as I conceive it also, delivered to the person of the said lord Hay by the king's own hands; and again, the dignity of a baron hath incident to it only the ceremony of robes, and not the cincture of the sword, coronet, &c.

The duke of Lenox was created earl of Richmond, 6 *Octobris* 11 *Regis*, without any of the ceremonies, as I take it; but the patent, as I conceive it also, was delivered to the person of the said duke, with the hands of the king; and again, in regard he was invested of the superior dignity of duke of Scotland, the ceremonies were not fit to be iterated.

King Henry VII. created Edward Courtenay, knight, earl of Devon, "26 Octobris, 1 Regni, teste meipso apud Wesmonasterium," &c. Whereby it may be collected, that it was done without the solemnities; for that where the solemnities were performed, it hath used to be with a *hisce testibus*, and not *teste meipso;* and whether it were delivered with the king's hand or not, it appears not.

Edward VI. created William earl of Essex, marquis of Northampton, 16 Feb. 1 Edw. VI. and it is mentioned to be "per cincturam gladii, cappam honoris, et circuli aurei impositionem;" but whether the delivery was by the king's own hand *non constat*, but it was *teste meipso*, and not *hisce testibus*.

The same king created John viscount L'Isle, earl of Warwick, the same time, and it is mentioned to be "per cincturam gladii," &c. but it was *teste meipso*, and not *hisce testibus*.

Edward VI. created Thomas lord Wriothesley, earl of Southampton in the same day, and in the same manner, with a *teste meipso*, and not *hisce testibus*. These three creations being made upon one day, and when the king was a child of about nine years old, and in the very entrance of his reign, for the patents bear date at the Tower of London, doth make me conjecture that all the solemnities were performed; but whether the king endured to be present at the whole ceremony, and to deliver the patents with his own hand, I doubt; for that I find that the very self-same day, year, and place, the king created his uncle the earl of Hertford, to be duke of Somerset "per cincturam gladii, cappam honoris, et circuli aurei impositionem, et traditionem virgulæ aureæ," *hisce testibus*, and not *teste meipso*, and with a *datum per manus nostras:* yet these things are but conjectural.

I find no precedents for a *non obstante*, or a dispensation with the solemnities, as the lord Brackley's bill was penned.

CLXXIX. TO THE LORD KEEPER.†

My honoured lord,

I have acquainted his Majesty with your letter, and the papers that came enclosed, who is exceedingly well satisfied with that account you have given him therein, especially with the speech you made at the taking of your place in the chancery. Whereby his Majesty perceiveth that you have not only given proof how well you understand the place of a chancellor, but done him much right also, in giving notice unto those that were present, that you have received such instructions from his Majesty: whose honour will be so much the greater, in that all men will acknowledge the sufficiency and worthiness of his Majesty's choice, in preferring a man of such abilities to that place, which besides cannot but be a great advancement and furtherance to his service: and I can assure your lordship, that his Majesty was never so well pleased, as he is with this account you have given him of this passage. Thus with the remembrance of my service, I rest

Your lordship's ever at command,

G. BUCKINGHAM.

Edinburgh, 18 May, 1617.

CLXXX. TO THE EARL OF BUCKINGHAM.‡

My very good Loan,

I know your lordship hath a special care of any thing that concerneth the queen. She was entered into dislike of her solicitor, this bearer Mr. Lowder, and resolute in it. To serve, and not to please, is no man's condition. Therefore upon knowledge of her pleasure, he was willing to part with his place, upon hopes not to be destituted, but to be preferred to one of the barons' places in Ireland. I pray move the king for him, and let his Majesty know from me, that I think, howsoever he pleased not here, he is fit to do his Majesty service in that place; he is grave and formal, which is somewhat there, and sufficient enough for that place. The queen had

ing men's inheritances, and good of the commonwealth. But Sir Edward then, or soon after, coming into favour by the marriage of his daughter, I conceive there was no farther proceedings in this affair. It will be needless for me to declare what reputation these books have among the professors of the law; but I cannot omit upon this occasion to take notice of a character Sir Francis Bacon had some time before given them in his proposition to the king, touching the compiling an amendment of the laws of England. "To give every man his due, had it not been for Sir Edward Coke's Reports, which though they may have errors and some peremptory and extrajudicial resolutions more than are warranted, yet they contain infinite good decisions and rulings over of cases, the law by this time had been almost like a ship without ballast: for that the cases of modern experience are fled from those that are adjudged and ruled in former time." *Stephens.*

* Stephens's First Collection, p. 206.

† Stephens's Second Collection, p. 47. ‡ Ibid p. 48.

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made Mr. Hackwell her solicitor, who hath for a long time taken much pains in her business, wherein she hath done well. He was an opposite in parliament, as Jones was, that the king hath made chief justice of Ireland. But I hold it no ill counsel to join, or to remove such men. God preserve and prosper you.

Your true and devoted friend and servant,

FR. BACON.

Whitehall, 25 May, 1617.

CLXXXI. TO THE EARL OF BUCKINGHAM.*

MY VERY GOOD LORD,

I SHALL write to your lordship of a business which your lordship may think to concern myself; but I do think it concerneth your lordship much more. For as for me, as my judgment is not so weak to think it can do me any hurt, so my love to you is so strong, as I would prefer the good of you and yours before mine own particular.

It seemeth secretary Winwood hath officiously busied himself to make a match between your brother and Sir Edward Coke's daughter: and, as we hear, he doth it rather to make a faction, than out of any great affection to your lordship; it is true, he hath the consent of Sir Edward Coke, as we hear, upon reasonable conditions for your brother; and yet no better than, without question, may be found in some other matches. But the mother's consent is not had, nor the young gentlewoman's, who expecteth a great fortune from her mother, which without her consent is endangered. This match, out of my faith and freedom towards your lordship, I hold very inconvenient both for your brother and yourself.

First, He shall marry into a disgraced house, which in reason of state is never held good.

Next, He shall marry into a troubled house of man and wife, which in religion and christian discretion is disliked.

Thirdly, Your lordship will go near to lose all such your friends as are adverse to Sir Edward Coke; myself only except, who out of a pure love and thankfulness shall ever be firm to you.

And lastly and chiefly, believe it, it will greatly weaken and distract the king's service; for though, in regard of the king's great wisdom and depth, I am persuaded, those things will not follow which they imagine: yet opinion will do a great deal of harm, and cast the king back, and make him relapse into those inconveniences which are now well on to be recovered.

Therefore my advice is, and your lordship shall do yourself a great deal of honour, if, according to religion and the law of God, your lordship will signify unto my lady your mother, that your desire is, that the marriage be not pressed or proceeded in without the consent of both parents; and so either break it altogether, or defer any farther delay in it, till your lordship's return: and this the rather, for that, besides the inconvenience of the matter itself, it hath been carried so harshly and inconsiderately by secretary Winwood, as, for doubt that the father should take away the maiden by force, the mother, to get the start, hath conveyed her away secretly; which is ill of all sides. Thus hoping your lordship will not only accept well, but believe my faithful advice, who by my great experience in the world must needs see farther than your lordship can, I ever rest

Your lordship's true and most devoted friend and servant,

FR. BACON, C. S.

I have not heard from your lordship since I sent the king my last account of council business: but I assure myself you received it, because I sent at the same time a packet to secretary Lake, who hath signified to me that he hath received it.

I pray your lordship deliver to his Majesty this little note of chancery business.

July 12, 1617.

CLXXXII. TO THE KING.†

IT MAY PLEASE YOUR MOST EXCELLENT MAJESTY,

I THINK it agreeable to my duty, and the great obligation wherein I am tied to your Majesty, to be freer than other men in giving your Majesty faithful counsel, while things are in passing; and more bound than other men in doing your commandments, when your resolution is settled, and made known to me.

I shall therefore most humbly crave pardon from your Majesty, if in plainness, and no less humbleness, I deliver to your Majesty my honest and disinterested opinion, in the business of the match of Sir John Villiers, which I take to be *magnum in parvo:* preserving always the laws and duties of a firm friendship to my lord of Buckingham, whom I will never cease to love, and to whom I have written already, but have not heard yet from his lordship.

But first I have three suits to make to your Majesty, hoping well you will grant them all.

The first is, that if there be any merit in drawing on that match, your Majesty would bestow the thanks not upon the zeal of Sir Edward Coke to please your Majesty, nor upon the eloquent persuasions or pragmaticals of Mr. Secretary Winwood, but upon them, that carrying your commands and directions with strength and justice, in the matter of the governor of Diepe,‡ in the matter of Sir Robert Rich, and in the matter of protecting the lady, according to your Majesty's commandment; have so humbled Sir Edward Coke, as he seeketh now that with submission, which, as your Majesty knoweth,

* Stephens's First Collection, p. 207. † Ibid. p. 210.

‡ All that I have seen relating to the difference between the governor of Diepe and Sir Edward Coke, is contained in a letter of secretary Winwood's to my lord Buckingham, dated 29 June this year, and in these words; "Sir Edward Coke hath consigned into the hands of the lords 2400*l.* for the satisfaction of the French ambassador, in the cause which concerneth the governor of Diepe." *Stephens.*

before he rejected with scorn: for this is the true orator that hath persuaded this business; as I doubt not but your Majesty in your excellent wisdom doth easily discern.

My second suit is, that your Majesty would not think me so pusillanimous, as that I, that when I was but Mr. Bacon, had ever, through your Majesty's favour, good reason at Sir Edward Coke's hands, when he was at the greatest, should now, that your Majesty of your great goodness hath placed me so near your chair, being, as I hope, by God's grace and your instructions, made a servant according to your heart and hand, fear him, or take umbrage of him, in respect of mine own particular.

My third suit is, that if your Majesty be resolved the match shall go on, after you have heard my reasons to the contrary; I may receive therein your particular will and commandments from yourself, that I may conform myself thereunto; imagining with myself, though I will not wager on women's minds, that I can prevail more with the mother than any other man. For if I should be requested in it from my lord of Buckingham, the answer of a true friend ought to be, that I had rather go against his mind than against his good: but your Majesty I must obey; and besides, I shall conceive that your Majesty, out of your great wisdom and depth, doth see those things which I see not.

Now therefore, not to hold your Majesty with many words, which do but drown matter, let me most humbly desire your Majesty to take into your royal consideration, that the state is at this time not only in good quiet and obedience, but in a good affection and disposition. Your Majesty's prerogative and authority having risen some just degrees above the horizon more than heretofore, which hath dispersed vapours: your judges are in good temper; your justices of the peace, which is the body of the gentlemen of England, grow to be loving and obsequious, and to be weary of the humour of ruffling: all mutinous spirits grow to be a little poor, and to draw in their horns; and not the less for your Majesty's disauthorizing the man I speak of. Now then I reasonably doubt, that if there be but an opinion of his coming in, with the strength of such an alliance, it will give a turn and relapse in men's minds, into the former state of things, hardly to be holpen, to the great weakening of your Majesty's service.

Again, your Majesty may have perceived, that as far as it was fit for me in modesty to advise, I was ever for a parliament; which seemeth to me to be *cardo rerum* or *summa summarum* for the present occasions. But this my advice was ever conditional; that your Majesty should go to a parliament with a council united, and not distracted; and that your Majesty will give me leave never to expect, if that man come in. Not for any difference of mine own, for I am *omnibus omnia* for your Majesty's service, but because he is by nature unsociable, and by habit popular, and too old now to take a new ply. And men begin already to collect, yea and to conclude, that he that raiseth such a smoke to get in, will set all on fire when he is in.

It may please your Majesty, now I have said, I have done; and as I think I have done a duty not unworthy the first year of your last high favour, I most humbly pray your Majesty to pardon me, if in any thing I have erred; for my errors shall always be supplied by obedience; and so I conclude with my prayers for the happy preservation of your person and estate.

Your Majesty's most humble, bounden, and most devoted servant,

FR. BACON, C. S.

Gorhambury, July 25, 1617.

CLXXXIII. TO THE EARL OF BUCKINGHAM.*

MY VERY GOOD LORD,

I DO think long to hear from your lordship, touching my last letter, wherein I gave you my opinion touching your brother's match. As I then showed my dislike of the matter, so the carriage of it here in the manner I dislike as much. If your lordship think it is humour or interest in me that leads me, God judge my sincerity. But I must say, that in your many noble favours towards me, they ever moved and flowed from yourself, and not from any of your friends whatsoever; and therefore in requital give me leave, that my counsels to you again be referred to your happiness, and not to the desires of any of your friends. I shall ever give you, as I give my master, safe counsel, and such as time will approve.

I received yesterday from Mr. Attorney the queen's bill, which I send your lordship. The payment is not ont of lands, but ont of the customs, and so it can be but the rent. Your lordship remembereth, it is but in a case which I hope shall never be; that is, after his Majesty's death, if she survive. God ever bless and direct you.

Your lordship's most faithful and devoted friend and servant,

FR. BACON, C. S.

Gorhambury, July 25, 1617.

CLXXXIV. TO THE KING.†

IT MAY PLEASE YOUR MOST EXCELLENT MAJESTY,

I DARE not presume any more to reply upon your Majesty, but I reserve my defence till I attend your Majesty at your happy return; when I hope verily to approve myself, not only a true servant to your Majesty, but a true friend to my lord of Buckingham; and for the times also, I hope to give your Majesty a good account, though distance of place may obscure them. But there is one part of your Majesty's letter that I could be sorry to take time to answer; which is, that your Majesty conceiveth, that whereas I wrote that the height of my lord's fortune might make him secure, I meant that he was turned proud, or unknowing of himself; surely the opinion which

* Stephens's First Collection, p. 213. † Ibid. p. 214.

I have ever had of my lord, whereof your Majesty is best witness, is far from that. But my meaning was plain and simple, that his lordship might, through his great fortune, be the less apt to cast and foresee the unfaithfulness of friends, and the malignity of enemies, and accidents of time. Which is a judgment, your Majesty knoweth better than I, that the best authors make of the best and best tempered spirits, "ut sunt res humanæ;" insomuch that Guiciardine maketh the same judgment, not of a particular person, but of the wisest state of Europe, the senate of Venice, when he saith, their prosperity had made them secure, and underweighers of perils. Therefore I beseech your Majesty to deliver me in this from any the least imputation upon my dear and noble lord and friend. And so expecting that that sun which when it went from us left us cold weather, and now it is returned towards us hath brought with it a blessed harvest; will, when it cometh to us, dispel and disperse all mists and mistakings.

July 31, 1617.

CLXXXV. TO THE EARL OF BUCKINGHAM.*

My very good lord,

Since my last to your lordship, I did first send for Mr. Attorney-General, and made him know, that, since I heard from court, I was resolved to further the match and the conditions thereof for your lordship's brother's advancement the best I could. I did send also to my lady Hatton, and some other special friends, to let them know, I would in any thing declare for the match; which I did, to the end that if they had any apprehension of my assistance, they might be discouraged in it. I sent also to Sir John Butler, and after by letter to my lady your mother, to tender my performance of any good office towards the match or the advancement from the mother. This was all I could think of for the present.

I did ever foresee, that this alliance would go near to lose me your lordship that I hold so dear: and that was the only respect particular to myself that moved me to be as I was, till I heard from you. But I will rely upon your constancy and nature, and my own deserving, and the firm tie we have in respect of the king's service.

In the mean time I must a little complain to your lordship, that I do hear my lady your mother and your brother Sir John do speak of me with some bitterness and neglect. I must bear with the one as a lady, and the other as a lover, and with both for your lordship's sake, whom I will make judge of any thing they shall have against me. But I hope, though I be a true servant to your lordship, you will not have me to be a vassal to their passions, especially as long as they are governed by Sir Edward Coke and secretary Winwood, the latter of which I take to be the worst; for Sir Edward Coke, I think, is more modest and discreet: therefore your lordship shall do me right: and yet I shall take it for favour, if you signify to them, that you have received satisfaction from me, and would have them use me friendly and in good manner. God keep us from these long journeys and absence, which make misunderstandings and give advantage to untruth, and God ever prosper and preserve your lordship.

Your lordship's true and devoted friend and servant,

FR. BACON, C. S.

Gorhambury, Aug. 23, 1617.

* Stephens's First Collection, p. 215.

CLXXXVI. A MEMORIAL FOR YOUR MAJESTY.†

Although I doubt not but your Majesty's own memory and care of your affairs will put you in mind of all things convenient against you shall meet with your council, yet some particulars I thought it not unfit to represent to your Majesty; because they passed the labour of your council.

I. Some time before your departure, here was delivered unto you by the officers of your exchequer a computation of your revenue and expense, wherein was expressed that your revenue ordinary was not only equal to your expense, but did somewhat exceed it, though not much.

In this point, because the half year will now be expired at Michaelmas, it shall be fit, that your Majesty call to account, whether that equality hath held for this half year; and if not, what the causes have been, and whether the course prescribed hath been kept, that the ordinary expense hath been borne out of the ordinary revenue, and the extraordinary only out of such money as hath come in by extraordinary means, or else your estate cannot clearly appear.

II. To maintain this equality, and to cause your Majesty's state to subsist in some reasonable manner till farther supply might be had, it was found to be necessary that 200,000*l.* of your Majesty's most pregnant and pressing debts should be discharged; and after consideration of the means how to do that, two ways were resolved on. One that 100,000*l.* should be discharged to the farmers of your customs by 25,000*l.* yearly, they having for their security power to defalke so much of their rent in their own hands: but because if that should be defalked, then your ordinary should want so much, it was agreed that the farmers should be paid the 25,000*l.* yearly in the sale of woods.

In this point it is fit for your Majesty to be informed what hath been done, and whether order hath been taken with the farmers for it, and what debts were assigned to them so to discharge; for of the particulars of that course I never heard yet.

And because it is apparent that the woodfalls this year do not amount to half that sum of 25,000*l.* your Majesty is to give charge that consideration be had how the same shall be supplied by some

† Stephens's Second Collection, p. 58.

other extraordinary for the present year, or else here will follow a fracture of the whole assignments.

Item, Your Majesty may please to call for information how that money raised upon the woods is employed, so much as is already received, and to be wary that no part hereof be suffered to go for extraordinaries, but to be employed only for the use for which it is assigned, or else a greater rupture will follow in your assignments.

Item, A special consideration is to be had what course shall be taken for the rest of the years with the wood sales for supply of this 25,000*l.* yearly.

III. The other hundred thousand pound was agreed to be borrowed, and an allotment made by my lords of the council at the table, how the same should be employed, and for what special services, whereof I deliver to your Majesty herewith a copy.

In which point it may please your Majesty to cause yourself to be informed how that allotment hath been observed, and because it is likely that a good part of it hath gone towards the charges of this your journey to Scotland, at least so it is paid, your Majesty is to call for the particulars of that charge, that you may see how much of that hundred thousand it taketh up.

And then consideration is to be had how it may be supplied with some extraordinary comings in, as namely the moneys to come from the merchant adventurers, that the same be allotted to none other use, but to perform this allotment, that so the foundation laid may be maintained, or else all will be to seek; and if there be any other extraordinary means to come to your Majesty, that they may be reserved to that use.

And because care must be had to keep your credit in London, for this money borrowed, your Majesty may please to call for information what is done in the matter of the forests, and what sum, and in what reasonable time, is like to be made hereof.

The extraordinaries which it is like will be alleged for this year.

Your Majesty's journey into Scotland.
The lord Hay's employment into France.
The lord Roos into Spain.
The Baron de Tour extraordinary from France.
Sir John Bennett to the Archduke.
The enlarging your park at Theobalds.
Sir John Digby's sending into Spain.

Of all which when your Majesty hath seen an estimate what they amount unto, and what money hath been already delivered towards them, which I fear will fall to be out of the moneys borrowed at London; then it is to be considered what extraordinaries are any ways to come in, which may supply these extraordinaries laid out, and be employed for the uses for which the moneys borrowed were intended.

CLXXXVII. TO THE EARL OF BUCKINGHAM.*

My even best lord, now better than yourself,

Your lordship's pen or rather pencil hath portrayed towards me such magnanimity and nobleness and true kindness, as methinketh I see the image of some ancient virtue, and not any thing of these times. It is the line of my life, and not the lines of my letter, that must express my thankfulness: wherein if I fail, then God fail me, and make me as miserable as I think myself at this time happy by this reviver, through his Majesty's singular clemency, and your incomparable love and favour. God preserve you, prosper you, and reward you for your kindness to

Your raised and infinitely obliged friend and servant,

FR. BACON, C. S.

Sept. 22, 1617.

CLXXXVIII. TO THE EARL OF BUCKINGHAM.†

My very good lord,

I send your lordship the certificate touching the enrolment of prentices. We can find no ground for it by law. Myself shall ever be ready to farther things that your lordship commendeth; but where the matter will not bear it, your lordship, I know, will think not the worse, but the better of me, if I signify the true state of things to your lordship; resting ever

Your lordship's true friend and devoted servant,

FR. BACON, C. S.

York-house, October 29, 1617.

THE CERTIFICATE.

According to his Majesty's command signified by your lordship's letters, we have advisedly considered of the petition touching the enrolment of apprentices' indentures, and heard the petitioners' counsel, and do find as followeth:

1. That the act of parliament 5 Eliz. doth not warrant the erecting of an office to enrol such indentures, in cities, towns corporate, or market towns; but if any such enrolment should be, it must be by the officers there, who are assigned to perform sundry other things touching apprentices and servants.

2. That in country villages, for which the suit carries most colour, we cannot give the suitors hope, that any profit will be there made, warrantable by law.

Thus we have, according to our duties, certified our opinions of this petition, submitting the same nevertheless to his Majesty's great wisdom; and rest

At your lordship's command,

FR. BACON, C. S.
H. MONTAGUE.
THO. COVENTRY.

Oct. 25, 1617.

* Stephens's First Collection, p. 217. † Ibid.

CLXXXIX. TO THE EARL OF BUCKINGHAM.*

My very good lord,

The liking which his Majesty hath of our proceeding concerning his household, telleth me that his Majesty cannot but dislike the declining and tergiversation of the inferior officers; which by this time he understandeth.

There be but four kinds of retrenchments. 1. The union of tables. 2. The putting down of tables. 3. The abatement of dishes to tables. 4. The cutting off new diets and allowance lately raised; and yet perhaps such as are more necessary than some of the old.

In my opinion, the first is the best and most feasible. The lord chamberlain's table is the principal table of state. The lord steward's table, I think, is much frequented by Scottish gentlemen. Your lordship's table hath a great attendance; and the groom of the stole's table is much resorted to by the bedchamber. These would not be touched. But for the rest, his Majesty's ease considered, I think they may well be united into one.

These things are out of my element, but my eare runneth where the king's state most laboureth. Sir Lionel Cranfield † is yet sick, for which I am very sorry; for methinks his Majesty, upon these tossings over his business from one to others, hath an apt occasion to go on with sub-committees. God ever preserve and prosper you.

Your lordship's true friend and devoted servant,

FR. BACON, C. S.

York-house, Nov. 19, 1617.

CXC. TO THE LORD KEEPER.‡

My honourable lord,

His Majesty commandeth me to write to your lordship, that he wonders your hand being at that letter of the lords of the council, which he saith is a very blunt one; you have not besides sent him some advice of your own, his Majesty having only intrusted you to speak with Sir Lionel Cranfield about his estate.

Your lordship's faithful friend and servant,

G. BUCKINGHAM.

Newmarket, 19 Nov. 1617.

CXCI. TO THE EARL OF BUCKINGHAM.§

My very good lord,

Yesterday at afternoon were read at the table his Majesty's two letters,‖ written with his own hand, the matter worthy the hand. For they were written "ex arte imperandi," if I can judge; and I hope they and the like will disenchant us of the opinion, which yet sticks with us, that to-day will be as yesterday, and to-morrow as to-day; so as there will be, as he saith, "Aeribus initiis, fine ineurioso."

I hold my opinion given in my former letter, that the uniting of some tables is the most passable way. But that is not all; for when that is done, the king may save greatly in that which remaineth. For if it be set down, what tables shall be fixed, and what diet allowed to them, my steward, as ill a *mesnager* as I am, or my lord mayor's steward, can go near to tell, what charge will go near to maintain the proportion. Then add to that some large allowance for waste, because the king shall not lose his prerogative to be deceived more than other men, and yet, no question, there will be a great retrenchment. But against this last abatement will be fronted the payment of arrears. But I confess I would be glad that I might see, or rather that a parliament may see, and chiefly that the king, for his own quiet, may see, that upon such a sum paid, such an annual retrenchment will follow: for things will never be done in act, except they be first done in conceit.

I know these things do not pertain to me: for my part is to acquit the king's office towards God by administration of justice, and to oblige the hearts

* Stephens's First Collection, p. 219.

† Sir Lionel Cranfield was a man of so much note in these times, and so often named in these papers, that I cannot omit taking some notice of his good and bad fortunes. He was bred a merchant, yet by his great abilities in, and application to business, and the relation he had to my lord of Buckingham by marriage, he was raised to be master of the court of requests, then of the wardrobe, and after of the court of wards, created Lord Cranfield, and earl of Middlesex; missing the lord keeper's place, he was constituted lord high treasurer, which being an office he understood as well as any, we may conclude his integrity fell short of his ability, from the severe judgment given against him by the house of lords in 1624. *Stephens.*

‡ Stephens's Second Collection, p. 64.

§ Ibid. p. 65.

‖ One of these letters of K. James, as it contains a specimen of the frugality and good economy of his court, and relates to the subject we are upon, I have borrowed from the Cabala, p. 258, in terms following.

A letter read to the council-board 21 Nov. 1617, touching the abatement of his Majesty's household charge.

My lords:

No worldly thing is so precious as time: ye know what task I gave you to work upon, during my absence; and what time was limited unto you, for the performance thereof. This same chancellor of Scotland was wont to tell me twenty-four years ago, that my house could not be kept upon epigrams: long discourses and fair tales will never repair my estate. "Omnis virtus in actione constit." Remember, that I told you, the shoe must be made for the foot, and let that be the square of all your proceeding in this business. Abate superfluities of all things; and multitudes of unnecessary officers, wherever they be placed. But for the household, wardrobe, and pensions, cut and carve as many as may agree with the possibility of my means. Exceed not your own rule of 50,000*l.* for the household. If you can make it less I will account it for good service. And that you may see I will not spare mine own person, I have sent, with this bearer, a note of the superfluous charges concerning my mouth, having had the happy opportunities of this messenger, in an errand so nearly concerning his place. In this I expect no answer in word or writing, but only the real performance, for a beginning to relieve me out of my miseries. For now the ball is at your feet, and the world shall bear me witness, that I have put you fairly to it; and so praying God to bless your labours, I bid you heartily farewell. Your own,

JAMES R.

Mr. Stephens says, In the other I suppose his Majesty apprehends that the vigour the council at first showed in reducing the charge of his household, would not be of long continuance; it being observed by Tacitus, in the words here cited, to be a thing not unusual in public affairs, that violent beginnings had negligent conclusions.

of his people to him by the same, and to maintain his prerogative. But yet because it is *in hoc* that the king's case laboureth, I cannot but yield my care, and my strength too, in council, such as it is; which cannot be so much, as it was between our Lady-day and Michaelmas last. But whatsoever it is, it is wholly his Majesty's without any deflexion.

As soon as I find any possibility of health in Sir Lionel Cranfield, to execute a sub-commission, I will by conference with him frame a draught of a letter from his Majesty, for which there is the fairest occasion in the world. And the king hath prepared it as well as possible. God ever preserve and prosper you.

Your lordship's true friend and devoted servant,
FR. BACON, C. S.

York-house, Nov. 22, 1617.

CXCII. TO THE EARL OF BUCKINGHAM.*

My lord,

How well I wish to Sir Gilbert Haughton, himself I dare say doth not doubt, partly out of mine own affection, and chiefly for your lordship's affection towards him, which is to me more than mine own. That the king should make bargains of hope, when his treasure sufficeth not for his own charge, I may not advise for my dearest friends; for I am nailed to the king's estate. But two things I shall assent unto; the one, that if the king can redeem his works without charge of officers, I shall be glad of it, both for the gentleman's sake, and because I perceive the uniting of the allum-works in the king's hand is best; the other, that if his Majesty be pleased to signify his pleasure to my lord treasurer and me, that there be no forfeiture taken by Banister till the king shall advise of this bargain, we will hold him to it. God preserve and prosper your lordship. Your lordship, I think, perceiveth both by scribbling and cursory inditing, that I write in straits of business.

Your lordship's true friend and devoted servant,
FR. BACON, C. S.

York-house, this 24th of Nov. 1617.

CXCIII. TO THE EARL OF BUCKINGHAM.†

My very good lord,

I send your lordship a draught of a letter touching the sub-commission, written in wide lines, because it may be the better amended by his Majesty. I think it is so penned as none can except to it, no nor imagine any thing of it. For the household business there was given a fortnight's day; for the pensions, the course which I first propounded, of abating a third throughout, and some wholly, seemeth well entered into. These be no ill beginnings. But this course of the sub-commission threads all the king's business. God ever preserve and prosper you.

Your lordship's true friend and devoted servant,
FR. BACON, C. S.

York-house, Nov. 27, 1617.

Sir Lionel Cranfield is now reasonably well recovered.

DRAUGHT OF THE SUB-COMMISSION.

My lords,

In this first and greatest branch of our charge concerning our house, we do find what difficulties are made, and what time is lost, in disputing of and devising upon the manner of doing it: whereof the matter must be, and is so fully resolved. Neither can we but see in this, as in a glass, the like event to follow in the rest upon like reason. For the inferior officers in every kind, who are best able for skill to propound the retrenchments, will out of interest or fearfulness make dainty to do service; and that which is done with an ill-will will never be well done. Again, to make it the act of the whole table, for the particular propositions and reckonings, will be too tedious for you, and will draw the business itself into length; and to make any particular committees of yourselves, were to impose that upon a few, which requireth to be carried indifferently as the act of you all. For since the great officers themselves think it too heavy for them, as our state now is, to deal in it, without bringing it to the table; with much more reason may any particular persons of you be loth to meddle in it, but at the board. In all which respects we have thought fit, neither do we see any other way, that you send unto us the names of the officers of our exchequer, and our custom-house, and auditors, out of which we will make choice of some few, best qualified to be sub-committees, for the better ease, and the speeding of the business by their continual travels and meetings; whose part and employment we incline to be to attend the principal officers in their several charges, and join themselves to some of the inferior officers, and so take upon them the mechanic and laborious part of every business, thereby to facilitate and prepare it for your consultations, according to the directions and instructions they shall receive from you from time to time.

CXCIV. TO THE KING.‡

May it please your Majesty,

Being yesterday assembled in council to proceed in the course we had begun for retrenchment of your Majesty's expenses; we received your princely letters, whereby we are directed to send to your Majesty the names of the officers of the exchequer, custom-house, and auditors, out of which you purpose to make choice of some to be sub-committed to handle the mechanic and laborious part of that which your Majesty had appointed to our care; we

* Stephens's Second Collection, p. 67.

† Ibid.

‡ Ibid. p. 69.

have, according to our duty, sent unto your Majesty the names of the several officers of your Majesty in those places, to be ordered as your wisdom shall think best to direct. But withal, we thought it appertenant to our duties to inform your Majesty how far we have proceeded in the several heads of retrenchments by your Majesty at your departure committed unto us, that when you know in what estate our labours are, your judgment may the better direct any farther course as shall be meet.

The matter of the household was by us, some days since, committed peremptorily to the officers of the house, as matter of commandment from your Majesty, and of duty in them, to reduce the expense of your house to a limited charge of fifty thousand pounds by the year, besides the benefit of the compositions; and they have ever since painfully, as we are informed, travailed in it, and will be ready on Sunday next, which was the day given them, to present some models of retrenchments of divers kinds, all aiming at your Majesty's service.

In the point of pensions we have made a beginning, by suspending some wholly for a time, and of others of a third part; in which course we are still going on, until we make it fit to be presented to your Majesty; in like manner the lord chamberlain and the lord Hay did yesterday report unto us, what their travail had ordered in the wardrobe; and although some doubt did arise unto us, whether your Majesty's letters intended a stay of our labours, until you had made choice of the sub-committee intended by you; yet presuming that such a course by sub-committee was purposed rather for a farther-ance, than let to that work, we did resolve to go on still till your Majesty's farther directions shall come unto us; and then according to our duty we will proceed, as we shall be by your Majesty commanded. In the mean time we thought it our duty to inform your Majesty of what we have done, that neither your Majesty may conceive that we have been negligent in those things which were committed unto us, nor your directions by your late letters hinder or cast back that which is already so far proceeded in. And so humbly kissing your royal hands, and praying to the Almighty for your long and happy reign over us, we rest

Your Majesty's most humble and obedient subjects and servants,

O. CANT.	LENOX.	PEMBROKE.
E. WORCESTER.	W. WALLINGFORD.	L. ELIEN.
T. ARUNDEL.	JAMES HAY.	T. EDMONDS.
E. WOTTON.	JUL. CÆSAR.	EDW. COKE.
T. LAKE.	T. SUFFOLK.	C. EDMONDS.

FR. BACON, C. S.

5 Dec. 1617.

CXCV. TO THE MARQUIS OF BUCKINGHAM.*

My very good Lord,

I waite now only rather in a kind of continuance and fresh suit, upon the king's business, than that the same is yet ripe, either for advertisement, or advice.

The sub-commissioners meet forenoon and afternoon, with great diligence, and without distraction or running several ways: which if it be no more than necessary, what would less have done? that is, if there had been no sub-commissioners, or they not well chosen.

I speak with Sir Lionel Cranfield, as cause requireth either for account or direction, and as far as I can, by the taste I have from him, discern probably their service will attain, and may exceed his Majesty's expectation.

I do well like the course they take, which is, in every kind to set down, as in beer, in wine, in beef, in muttons, in corn, &c. what cometh to the king's use, and then what is spent, and lastly what may be saved. This way, though it be not so accusative, yet it is demonstrative. "Nam rectum est index sui et obliqui," and the false manner of accounting, and where the gain cleaveth, will appear after by consequence. I humbly pray his Majesty to pardon me for troubling him with these imperfect glances, which I do, both because I know his Majesty thinketh long to understand somewhat, and lest his Majesty should conceive, that he multiplying honours and favours upon me, I should not also increase and redouble my endeavours and cares for his service. God ever bless, preserve, and prosper his Majesty and your lordship, to whom I ever remain,

Your true and most devoted servant,

FR. BACON, C. S.

16 Jan. 1617.

CXCVI. TO MR. MATTHEW, ABOUT READING AND GIVING JUDGMENT UPON HIS WRITINGS.†

Sir,

Because you shall not lose your labour this afternoon, which now I must needs spend with my ‡ lord chancellor, I send my desire to you in this letter, that you will take care not to leave the writing, which I left with you last, with any man, so long, as that he may be able to take a copy of it; because, first, it must be censured by you, and then considered again by me. The thing which I expect most from you is, that you would read it carefully over by yourself, and to make some little note in writing, where you think, to speak like a critic, that I do perhaps *indormiscere*, or where I do *indulgere genio;* or where, in fine, I give any manner of disadvantage to myself. This, *super totam materiam*, you must not fail to note: besides, all such words and phrases as you cannot like; for you know in how high account I have your judgment.

* Stephens's Second Collection, p. 71.

† Sir Toby Matthew's Second Collection of Letters, p. 22.

‡ This seems to be spoken pleasantly of himself, and to refer to Jan. 15, 1617-18, on which day the lord Verulam was by special warrant made lord chancellor, Rymer XVII. p. 55, and at which time probably some affairs, that required privacy and retirement, might occur.

CXCVII. TO THE MARQUIS OF BUCKINGHAM.*

My very good lord,

I thought fit by this my private letter to your lordship, to give you an account of such business as your lordship hath recommended unto me, that you may perceive that I have taken that care of them I ought, and ever shall in those you recommend or remit to me.

For the suit of the alehouses which concerneth your brother Mr. Christopher Villiers, and Mr. Patrick Mawl, I have conferred with my lord chief justice and Mr. Solicitor thereupon, and there is a scruple in it that it should be one of the grievances put down in parliament; which if it be, I may not in my duty and love to you advise you to deal in it; if it be not, I will mold it in the best manner and help it forward. The stay is upon the search of the clerk of the parliament, who is out of town; but we have already found, that the last grievance *in septimo*, is not the same with this suit; but we doubt yet of another *in tertio*.

For the business of Mr. Leviston, for your lordship's sake, who I perceive keeps your noble course with me, in acquainting me with these things, I shall apply myself unto you; though in my nature I do desire that those that serve in the court where I sit, though they be not in places of my gift, and so concerns not me nor my place in profit; yet I wish, I say, I might leave them in as good case as I find them. And this suit concerneth the main profit of the six clerks; who though they be of the master of the rolls his gift, yet they serve in my court. But my greatest doubt is, that the grant cannot be good in law; and that it is not like those other precedents, whereof I have received a note. For the difference is, where things have been written by all the clerks indifferently and loosely, in which case the king may draw them into an office; and where they have appertained to one especial office; in which case the king can no more take away the profits of a man's office, than he can the profits of his land. Therefore I think your lordship may do well to write to Mr. Solicitor † and serjeant Finch,‡ or some other lawyers that you trust, or such as Mr. Leviston trusteth, being persons of account, to inform you of the point in law, before you proceed any farther: for without that all is in vain.

For the business of Hawkins, touching the register for the commission of bankrupts; I am not yet satisfied likewise for the law, nor for the conveniency; but I rather incline to think it may pass; and I have set it in a course by which it may be throughly informed.

For Sir Rowland Egerton's cause, and his lady's, the parties have submitted themselves unto me, and are content to do it by bond, and therefore I will undoubtedly make an end of it according to justice and conscience.

For Sir Gilbert Houghton's business, I am in very good hope to effect your lordship's desire for his good.

For Moor's business, concerning the printing of books, after hearing all parties, I have sealed his patent; but for his former patent of salt, I dare not do it, without acquainting the council therewith, which I am ready to do if he require that course to be taken.

If his Majesty at any time ask touching the lord Clifton's business, I pray your lordship represent to his Majesty thus much: that whatsoever hath passed, I thank God I neither fear nor hate him; but I am wonderful careful of the seats of justice, that they may still be well munited, being principal sinews of his Majesty's authority. Therefore the course will be, as I am advised, that for this hainous misprision, that the party, without all colour or shadow of cause, should threaten the life of his judge, and of the highest judge of the kingdom next his Majesty, he be first examined, and if he confess it, then an *ore tenus*; if he confess it not, then an information in the star-chamber, and he to remain where he is till the hearing. But I do purposely forbear yet to have him examined, till the decree or agreement between him and my lord Aubigny, which is now ready, be perfected, lest it should seem an oppression, by the terror of the one, to beat him down in the other. Thus I ever rest

Your lordship's true friend and devoted servant,

FR. BACON, CANC.

York-house, Jan. 25, 1617.

I pray your lordship to pardon me, if in respect of a little watering in one of mine eyes, I have written this letter, being long and private business, in my secretary's hand.

CXCVIII. TO THE LORD CHANCELLOR.§

My honourable lord,

I have received your lordship's letters, wherein I see the continuance of your love and respect to me, in any thing I write you of, for which I give your lordship many thanks, desiring nothing for my man but what you shall find just and convenient to pass. I am very glad to understand that there is so good hope of Sir Gilbert Houghton's business, which I must needs ascribe to your lordship's great favour toward him for my sake, which I will ever acknowledge. If his Majesty at any time speak of the lord Clifton's business, I will answer according to that your lordship hath written, &c.

Your lordship's faithful servant,

G. BUCKINGHAM.

Newmarket, the last of Jan. 1617.

* Stephens's Second Collection, p. 73.

† Sir Thomas Coventry.

‡ Sir Henry Finch, serjeant at law, being the first of his name that made a considerable figure in that profession, I shall give a short account of him. He was younger brother to Sir Moyle Finch, of Eastwel in the county of Kent, and father of John, lord Finch, keeper of the great seal in the reign of king Charles I. He died in 1625, leaving to posterity a sufficient testimony of his learning in the law, as well as the sciences, in his book entitled, "A Description of the Common Laws of England according to the rules of art, &c." His son's good parts and elocution were acknowledged by the greatest of his enemies; which accomplishments, though he died without issue, have eminently appeared in some other descendants from his honourable family. *Stephens.*

§ Stephens's Second Collection, p. 75.

CXCIX. TO THE KING.*

It may please your most excellent Majesty,

Finding as well by your Majesty's despatches and directions to your council, as now by speech with Mr. Secretary Lake, that your Majesty is content to be troubled with business of sundry natures; I thought good, according to the duty of my place, and the necessity of the occasion, to put your Majesty in mind, that on this day seven-night, being Friday in the morning, I am, according to custom, to give a charge and admonition to the judges and justices of peace now before the circuits, wherein I am humbly to crave your Majesty's pleasure and directions.

I have for your Majesty's better ease set down the heads, which by the preseript of your book, and out of the consideration of the present times, I have thought fittest to be remembered. I have also sent your Majesty the last account of the judges' circuits, not to trouble you with the reading of them all; but to the end that if upon my memorial, or otherwise out of your Majesty's own memory, which is above memorials, you should have occasion to resort to those accounts, the papers may be by you.

The point of greatest weight, in my opinion, is the carrying of a balanced hand at this time in the matter of recusants, in regard of the treaty with Spain. For it were good, in respect of your people, that there were no note made, that the string is relaxed, and in respect of the treaty, that it is not strained; and therefore that the proceeding in those causes be rather diligent than severe.

I am wonderful glad to hear that this extremity of weather, which I think the Muscovite hath brought with him, hath not touched your Majesty, whose health and esse is far dearer to me than my life with all the appurtenances. God ever preserve and prosper you,

Your Majesty's most faithful and most obliged servant,

FR. BACON, CANC.

Friday morning, Feb. 6, 1617.

Your Majesty will be pleased your answer be with me on Thursday at noon, or soon after.

CC. TO THE LORD CHANCELLOR.†

My honourable lord,

I have acquainted his Majesty with your letter to me, and delivered likewise to him the letter and other things directed to his Majesty, who hath commanded me to return this answer to them all.

First, For your memorial of your charge to the judges, he liketh it so well, that he findeth nothing either to be added or diminished, and was so well satisfied therewith, that he accounteth it needless to read the other papers, but sealed them up again, and sendeth them back to your lordship without reading them. Only in the point of recusants his Majesty is of the quite contrary opinion to you; for though he would not by any means have a more severe course held, than his laws appoint in that case, yet sith the many reasons why, there should be no mitigation above that which his laws have enacted, and his own conscience telleth him to be fit. As first, the papists in his kingdom have taken such heart upon the commission given to Sir John Digby touching the match with Spain, that they have sent copies thereof privately up and down, and are so lifted up in their hopes of what they desire, that his Majesty cannot but take a more severe course, as far as by his laws he may, than hitherto he hath done. Besides, when they shall see a harder hand carried toward them than hath been accustomed, his Majesty assureth himself, they will employ all their means to farther the match, in hope of mitigating of that severity when it shall be accomplished. And though these reasons were not, his Majesty would account it a baseness in a prince to show such a desire of the match, as to slack any thing in his course of government, much more in propagation of the religion he professeth, for fear of giving hinderance to the match thereby. And so with many thanks for your favours to my brother in his business, I rest

Your lordship's faithful servant,

G. BUCKINGHAM.

Newmarket, 8 Feb. 1617.

CCL. TO THE MARQUIS OF BUCKINGHAM.‡

My very good lord,

Mr. Chancellor of the exchequer hath signified to me this day, that yesterday his Majesty called him to his coach, and said to him, that one that had used ill speech of me should be called before me, and make his submission to me; and thereupon be called before the council, and receive a sharp reprehension, and so be enlarged. And Mr. Chancellor could not tell me who the person was, but after by some letter he received from my lord Clifton, and speech with a man of his, he perceived it was he.

I pray your lordship in humbleness to let his Majesty know, that I little fear the lord Clifton, but I much fear the example, that it will animate ruffians and rodomonti extremely against the seats of justice, which are his Majesty's own seats, yea, and against all authority and greatness, if this pass without public censure and example; it having gone already so far as that the person of a baron hath been committed to the Tower. The punishment it may please his Majesty to remit, and I shall not formally but heartily intercede for him: but an example, setting myself aside, I wish for terror of persons that may be more dangerous than he, towards the least judge of the kingdom.

Therefore it may please his Majesty to speak of it with myself and my lords, when he cometh next, and in the mean time I will command, from his

* Stephens's Second Collection, p. 76.

† Ibid. p. 77.

‡ Ibid. p. 79.

Majesty, the master of the rolls, and Mr. Attorney, who were appointed by the table to examine him, to stay.* God ever prosper you.

Your Majesty's true friend and devoted servant,

March 17, 1617. FR. BACON, CANC.

CCII. TO THE MARQUIS OF BUCKINGHAM.†

My very good lord,

We have sat once upon the commission of treasure to no ill purpose, as may appear by the account enclosed; wherein his Majesty will find no prepostcrous issue of treasure: Mr. Chancellor imagines well, Coke seeks and beats over, as well where it is not, as where it is; secretary Naunton forgets nothing. I will look to bow things to the true ends. God bless and prosper his Majesty and yourself.

Your lordship's most obliged friend and faithful servant,

25 July, 1617. FR. VERULAM, CANC.

CCIII. TO THE MARQUIS OF BUCKINGHAM.‡

My very good lord,

I pray your lordship to signify to his Majesty, that I thought it my duty to stay at the seal, a book of Sir Francis Steward's, and Sir James Auterlony, &c. of 200*l.* land in charge in fee-simple: my reasons,

First, It is a perpetuity, and so much rent in diminution of revenue certain.

Secondly, The warrant, as is acknowledged, came only from my lord of Suffolk, and not from Mr. Chancellor. And yet my lord was wont to boast, that since he was treasurer, all commissions and contracts for sale of the king's lands were broken off and ceased.

Thirdly, The rate of the moneys paid by the gentlemen amounteth but to thirteen years' purchase; which is a plain gift of a good proportion of value.

If his Majesty, now informed, iterate his mandate, it is done, and I excused; but I could wish his Majesty would refer it to the commissioners of the treasury, how the gentlemen may be otherwise satisfied.

I received yesternight a brave account of the commission of the wards in Ireland, which this one year is advanced from 200*l.* per annum to 4000*l.* which is twenty-fold multiplied. This I write for two reasons. First, because I glory in it, because it was my work wholly; next, because his Majesty may take occasion by this to look better to the improvement of his wards in England in due time. God ever preserve and prosper you.

Your lordship's most obliged friend and faithful servant,

FR. VERULAM, CANC.

York-house, July 27, 1618.

CCIV. TO THE MARQUIS OF BUCKINGHAM.§

My very good lord,

I am very glad to hear of the honour his Majesty intendeth to my noble lady your lordship's mother.‖ This, amongst many other things, showeth in your lordship good nature, which is the root of all virtues, next religion. Besides, it doth sort well in states, when place and power do meet and stand not too far at distance.

For the passing of it by direction without bill signed, it cannot be in law. So is Mr. Attorney's opinion, and so is mine; and therefore there is presently a bill sent with an indorsement of passing it by immediate warrant, and this antedate.

For the antedate, I must present his Majesty with my caution, and with my obedience.

For the statute tieth me from antedates; and indeed the mischief is infinite: for by that means the king may grant any land, &c. and take it away a month hence, and grant it another by an antedate.¶ And surely were it land or the like, I would not say *absit*, or your Majesty cannot do it, for a world; or, Your Majesty is sworn and I am sworn; or such brave phrases; but surely, I say, I would in humbleness represent it to his Majesty.**

But the case of honour differeth; for therein his Majesty's prerogative and declaration is absolute, and he may make him that is last to be first. And therefore upon his Majesty's signification of his pleasure upon the indorsement of the bill signed, I take it I may lawfully do it.

I am here rejoicing with my neighbours the townsmen of St. Albans, for this happy day, the fifth of August,†† 1618.

Your lordship's most obliged friend and faithful servant,

Gorhambury. FR. VERULAM, CANC.

CCV. TO THE MARQUIS OF BUCKINGHAM.‡‡

My very good lord,

I thank your lordship for your last loving letter.

* I know not whether there was any prosecution against the lord Clifton, or whether it was prevented by the laying of violent hands upon himself, in the year ensuing. *Stephens.*

† Stephens's Second Collection, p. 80.

‡ Ibid. § Ibid. p. 82.

‖ The advancement of this lady to the title of the countess of Buckingham, was, notwithstanding the reasons here alleged, so ill resented by the house of commons in 1626, that in article XI. of their impeachment of the duke her son, it was objected against him as one of his offences. *Stephens.*

¶ 18 Hen. VII. cap. 1.

** By this and the preceding letter it appears, that as my lord chancellor thought it his duty to offer to the king his reasons against passing of a patent: yet if then the king, who was judge of the inconvenience, was pleased to command it, he was obliged to allow the same. But in those things which were contrary to law, as it is to be presumed, that after an humble representation thereof, no prince would exact, so no minister in such a case would yield an obedience. *Stephens.*

†† The fifth of August, being the anniversary of the king's deliverance from the earl of Gowry's conspiracy, was by some called the court holiday, and ridiculed as a fiction; though the truth thereof being delivered down by Archbishop Spotswood, and other good historians, I see no great reason to call it into question. *Stephens.*

‡‡ Stephens's Second Collection, p. 83.

I now write to give the king an account of a patent I have stayed at the seal. It is of licence to give in mortmain eight hundred pound land, though it be of tenure in chief to Allen * that was the player, for an hospital.

I like well that Allen playeth the last act of his life so well; but if his Majesty give way thus to amortize his tenures, his courts of wards will decay; which I had well hoped should improve.

But that which moved me chiefly is, that his Majesty now lately did absolutely deny Sir Henry Savile for 200*l.* and Sir Edward Sandys for 100*l.* to the perpetuating of two lectures, the one in Oxford, the other in Cambridge, foundations of singular honour to his Majesty, the best learned of kings, and of which there is great want; whereas hospitals abound, and beggars abound never a whit the less.†

If his Majesty do like to pass the book at all; yet if he would be pleased to abridge the 800*l.* to 500*l.* and then give way to the other two books for the university, it were a princely work. And I would make an humble suit to the king, and desire your lordship to join in it, that it might be so. God ever preserve and prosper you.

Your lordship's most obliged friend and faithful servant,

FR. VERULAM, CANC.

York-house, Aug. 18, 1618.

I have written to my lord chamberlain, being chancellor of Oxford, to help in the business.

CCVI. TO THE MARQUIS OF BUCKINGHAM.‡

My very good lord,

What passed in your lordship's presence, your lordship can tell, touching the navy. The morrow following we conclnded in approbation of the books, save in one point, touching the number convenient for manning the ships, wherein the number allowed by the commissioners had, in my judgment, a little of the merchant; for to measure by so many as were above dead pays, is no good argument. For the abuse of dead pays is to be amended, and not the necessary number abated. In this his Majesty may fall upon a middle proportion between that of the commissioners and that of the officers.

It were good, now the three books, which we have appointed to be engrossed into one ledger-book, are affirmed, there were a short book of his Majesty's royal directions, and orders thereupon, extracted.

For the commission of the treasury, I persuade myself, they are of the first hours that have been well spent in that kind. We have put those particulars, whereof his Majesty gave us charge, into a way.

Bingley's information will be to good purpose, and we find another of like nature revealed to Mr. Secretary and myself. God ever prosper you.

Your lordship's most obliged friend and faithful servant,

FR. VERULAM, CANC.

9 October, 1618.

* That Allen the player, who founded an hospital at Dulwich in Surry, had been an excellent actor of the comical and serious part, will appear evident to any one that shall thoroughly consider the following epigram made by that admirable dramatic poet, Ben Jonson.

To Mr. EDWARD ALLEN.

If Rome so great, and in her wisest age,
Fear'd not to boast the glories of her stage:
As skilful Roscius, and grave Æsop, men
Yet crown'd with honours, as with riches then;
Who had no less a trumpet of their name,
Than Cicero, whose every breath was fame:
How can so great example die in me?
That, Allen, I should pause to publish thee;
Who both their graces in thyself hast more
Outstript, than they did all that went before:
And present worth in all dost so contract,
As others speak, but only thou dost act.
Wear this renown. 'Tis just that who did give
So many poets life, by one should live.

† It were to be wished this observation did not hold true to this day: for though the foundations of hospitals are to be commended, which Sir Francis Bacon hath done both in this letter and other his writings; yet it shows that some more adequate remedy for supporting the poor, than what arises from these charities, or even from the laws enacted for their relief, was then, and yet is to be desired. And as the defect thereof is no small reproach to the government of a country, happy in its natural products, and enriched by commerce; so it would be an act of the greatest humanity to provide for the poor, and that idleness and beggary, the successive nursery of rogues, might as far as possible be extirpated. Upon this occasion I cannot but take notice of a story which has been spread abroad to the defamation of Sir Francis Bacon, though upon no good ground, as far as I can judge, as if in the accomplishment of the foundation of the Charter-house hospital, begun by Mr. Sutton and carried on by his executors, Sir Francis, who was then the king's solicitor, had for some ill designs of gain to himself or others, endeavoured to have defeated the same. The fact was, that the heir at law supposing, notwithstanding what Mr. Sutton had done in procuring acts of parliament, and patents from the king, in order to establish this noble charity, that the greatest part of his estate was descended to him, it was argued on his behalf by the solicitor-general, by Mr. Henry Yelverton, and Mr. Walter, men of great reputation in those times: and whatever ill intentions some of the court might have, my request to the reader is, that before he pass any censure upon Sir Francis Bacon, relating hereunto, he would please to peruse his advice, printed in vol. i. p. 495, given to the king touching Mr. Sutton's estate. *Stephens.*

‡ Stephens's Second Collection, p. 84. § Ibid. p. 85.

CCVII. TO THE MARQUIS OF BUCKINGHAM.§

My very good lord,

Looking for matter of service, I have found out a suit for myself: and it is proper for me more than all men, because it is within the account of the hanaper. But I have made a law to myself, that I will never beg any thing which shall not bring gain to the king. Therefore my suit is, to farm the profits of the alienations, yielding a thousand pounds a year more to the king than hath been yielded *communibus annis*, by a medium of seven years. If the king be pleased to grant me this, it will a little warm the honour he hath given me; and I shall have a new occasion to be, as I ever have been, and shall be,

Your lordship's obliged friend and faithful servant,

FR. VERULAM, CANC.

York-house, October 9, 1618.

CCVIII. TO THE MARQUIS OF BUCKINGHAM.*

My very good lord,

This morning Mr. Attorney came to me, and desired of me the many writs of *Ne exeat regnum* against most of the Dutch merchants,† and withal let me understand that there was a discovery of an infinite transportation of gold and silver out of this realm by the said Dutch merchaats, amounting to millioas; and that Sir John Britain had made a book thereof, and presented the same to his Majesty; and farther, that his Majesty had directed him to prosecute the same; and had also given Sir Thomas Vavasor the forfeiture of such tea of them as he ahould choose.

Hereupon I thought it my duty, as in a matter of great weight, to signify to his Majesty by your lordship what I conceive.

The discovery I think very happy. For if it be true, it will be a great benefit to his Majesty: it will also content his people much, and it will demonstrate also that Scotlaad is not the leech, as some discoursers say, but the Netherlanders, that suck the realm of treasure. So that the thing is very good.

But two things I must represent to his Majesty; the first, that if I stay merchants from their trading by this writ, I must do it either *ex officio*, or by special warrant from his Majesty.

If *ex officio*, then I must have more than a bare surmise to grant the writ upon, so as I must be acquainted with the grounds, or at least appearance of proofs. If by special warrant, then I desire to receive the same. The other is, that I humbly beseech his Majesty that these royal boughs of forfeiture may not be vintaged or cropp'd by private suitors, considering his Majesty's state as it is, but that Sir Thomas Vavasor, or Sir John Britain, may have a bountiful and gracious reward for their discovery; but not the prime, or without stint.

In sum, I would wish his Majesty to refer the whole business, and carriage of the same for his honour and profit, to the commissioners of treasury; or because it is a legal forfeiture, to myself, Mr. Chancellor, Sir Edward Coke, and my lord chief justice of Eagland: and by us his Majesty shall be assured to know the best course for his justice, honour, and profit, and that he may dispose what bounty he will. God ever preserve and prosper you.

Your lordship's most obliged friend and faithful servant,

FR. VERULAM, CANC.

York-house, Octob. 19, 1618.

CCIX. TO THE LORD CHANCELLOR.‡

My lord,

I have acquainted his Majesty with your letter, who giveth you thanks for your advice to communicate the business of the Dutchmen to the commissioners of the treasury, which his Majesty was before purposed to refer to them, as it concerns his treasure, for the carriage of it: and to your lordship and the rest named in your letter, for the relation it hath to the law. For the proposers of the suit, his Majesty intendeth only to reward their pains as may stand with his service and his princely disposition, but to preserve the main benefit himself: all that his Majesty would have your lordship to do for the present, is to take order about the writ of *Ne exeant regnum*; to advise with his learned counsel what course is to be taken, and if by a warrant from his Majesty, that your lordship send him a warrant to be signed, which shall be returned with all speed. Of other things his Majesty thinketh it will be time enough to speak at his return to London. In the mean time I rest

Your lordship's faithful friend and servant,

G. BUCKINGHAM.

Hinchenbroke, 21 Octob. 1618.

CCX. TO THE MARQUIS OF BUCKINGHAM.§

My very good lord,

I have this morning received the petty roll for the sheriffs. I received also the papers exhibited by Sir Miles Fleetwood, which I will use to his Majesty's best service, aad thereupon give account to his Majesty when time serveth.

My care, which is not dormant touching his Majesty's service, especially that of treasure, which is now *summa summarum*, maketh me propound to his

* Stephens's Second Collection, p. 86.

† The affair of these Dutch merchants is in some measure represented in this letter, and those of October 9, and Nov. 9, 1619. But Mr. Stephens in his introduction, p. 45, 46, gives us by the assistance of some authentic papers, the following account of the affair: Upon the 19th of October, 1618, the attorney-general having applied to the lord chancellor for writs *Ne exeat regnum*, against these merchants, afterwards exhibited an information against about one hundred and eighty of them, for transporting beyond the seas vast quantities of gold and silver in money, plate, and bullion, since the beginning of king James I.'s reign. The attorney at first brought the cause to a hearing against about twenty of them, who were supposed the greatest offenders, and most able to make restitution. Their fines amounting in the whole to 150,000*l.* of which Mr. William Courteen, and two others, were condemned in 20,000*l.* each; the advice which the lord chancellor gave the king, not to grant away the fines of such ten of them as Sir Thomas Vavasor the discoverer should choose, and which it seems he had in a manner been promised, was a piece of service worthy the place he enjoyed, and the trust he had with the king. Upon the 12th of October, 1619, Mr. Courteen was censured to pay 2000*l.* more, and other smaller sums, for endeavouring to corrupt the king's evidence. And the 19th of November following was appointed for the trial of between twenty and thirty more; but by reason of some neglect or mismanagement in the prosecution, which gave the court a great deal of trouble, and the defendants some advantage, the cause was not heard till the 7th of December, though most of them were then found guilty. Of the large fines imposed upon the delinquents, it is supposed that they paid but a third part; for during the prosecution, the States-General did by a letter desire the marquis of Buckingham to endeavour to moderate the heat thereof, as Sir Noel Carson their ambassador did the next day after sentence, to mitigate the severity.

‡ Stephens's Second Collection, p 87. § Ibid. p. 88.

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Majesty a matter, which, God is my witness, I do without contemplation of friend or end, but *animo recto*.

If Sir Edward Coke continue sick, or keep in, I fear his Majesty's service will languish too, in those things which touch upon law; as the calling in debts, recusants, alienations, defalcations, &c. And this is most certain, that in these new diligences, if the first beginning cool, all will go back to the old bias. Therefore it may please his Majesty to think of it, whether there will not be a kind of necessity to add my lord chief justice of England to the commissioners of treasure. This I move only to the king and your lordship, otherwise it is a thing *ex non entibus*. God preserve and prosper you.

Your lordship's most faithful servant,

FR. VERULAM, CANC.

From the Star-Chamber, 25 Nov. 1618.

P. S. I forget not Tufton's cause. All things stay, and precedents are in search.

CCXI. TO THE MARQUIS OF BUCKINGHAM.*

My very good lord,

This long book, which I send for his Majesty's signature, was upon a conference and consult yesternight (at which time I was assisted by the two chief justices, and attended by the surveyor, attorney, and receiver of the court of wards, Fleetwood) framed and allowed.

It is long, because we all thought fit not to piece new instructions with old instructions, but to reduce both old and new into one body of instructions. I do not see that of the articles, which are many, any could have been spared. They are plain, but they have a good property, that they will take fast hold. I may not trouble his Majesty with choosing some of them in particular, when all are good: only I think fit to let his Majesty know of one, which is, that according to his own directions, the oath of making no private unlawful profit is now as well translated to the master and officers, that may take, as to the parties and suitors that may give.

It little becometh me to possess his Majesty that this will be to his Majesty's benefit ten thousands yearly, or fifteen thousands, or twenty thousands: for these rattles are fitter for mountebanks of service, than grave counsellors. But my advices, as far as I am able to discern, tend or extend but to thus much: this is his Majesty's surest and easiest way for his most good.

Sir Miles Fleetwood, who both now and heretofore hath done very good service in this, meriteth to be particularly from your lordship encouraged; which I beseech your lordship not to forget. God ever prosper you.

Your lordship's most faithful bounden friend and servant,

FR. VERULAM, CANC.

Dec. 4. 1618.

* Stephens's Second Collection, p. 89.

CCXII. TO THE KING.†

May it please your most excellent Majesty,

According to your Majesty's pleasure, signified to us by the lord marquis Buckingham, we have considered of the fitness and conveniency of the gold and silver thread business, as also the profit that may accrue unto your Majesty.

We are all of opinion that it is convenient that the same should be settled, having been brought hither at the great charge of your Majesty's now agents, and being a means to set many of your poor subjects on work; and to this purpose there was a former certificate to your Majesty from some of us with others.

And for the profit that will arise, we see no cause to doubt: but do conceive apparent likelihood, that it will redound much to your Majesty's profit, which we esteem may be at the least 10,000*l.* by the year; and therefore in a business of such benefit to your Majesty, it were good it were settled with all convenient speed, by all lawful means that may be thought of, which, notwithstanding, we most humbly leave to your Majesty's highest wisdom.

Your Majesty's most humble and faithful servants,

FR. VERULAM, CANC.
H. MONTAGU. HENRY YELVERTON.

4 Oct. 1618. The marquis of Buckingham writes from Theobald's to the lord chancellor, that the king being desirous to be satisfied of the gold and silver thread business, would have his lordship consult the lord chief justice, and the attorney and solicitor-general therein.

CCXIII. TO THE KING.‡

It may please your most excellent Majesty,

I do many times with gladness, and for a remedy of my other labours, revolve in my mind the great happiness which God, of his singular goodness, hath accumulated upon your Majesty every way; and how complete the same would be if the state of your means were once rectified, and well ordered: your people military and obedient, fit for war, used to peace; your church illightened with good preachers, as an heaven of stars; your judges learned, and learning from you, just, and just by your example; your nobility in a right distance between crown and people, no oppressors of the people, no overshadowers of the crown; your council full of tributes of care, faith, and freedom; your gentlemen and justices of peace willing to apply your royal mandates to the nature of their several counties, but ready to obey; your servants in awe of your wisdom, in hope of your goodness; the fields growing every day, by the improvement and recovery of grounds, from the desert to the garden; the city grown from wood to brick; your sea-walls or *pomœrium* of your island

† Ibid. p. 90.

‡ Ibid.

surveyed, and in edifying; your merchants embraceing the whole compass of the world, east, west, north, and south; the times give you peace, and yet offer you opportunities of action abroad: and lastly, your excellent royal issue entaileth these blessings and favours of God to descend to all posterity. It resteth, therefore, that God having done so great things for your Majesty, and you for others, you would do so much for yourself, as to go through, according to your good beginnings, with the rectifying and settling of your estate and means, which only is wanting; *hoc rebus defuit unum.* I therefore, whom only love and duty to your Majesty, and your royal line, hath made a financier, do intend to present unto your Majesty a perfect book of your estate, like a perspective glass, to draw your estate nearer to your sight; beseeching your Majesty to conceive, that if I have not attained to do that that I would do, in this which is not proper for me, in my element, I shall make your Majesty amends in some other thing, in which I am better bred. God ever preserve, &c.

Jan. 2, 1618.

CCXIV. TO THE MARQUIS OF BUCKINGHAM.*

My very good lord,

If I should use the count de Gondemar's action, I should first lay your last letter to my mouth in token of thanks, and then to my heart in token of contentment, and then to my forehead in token of a perpetual remembrance.

I send now to know how his Majesty doth after his remove, and to give you account that yesterday was a day of motions in the chancery. This day was a day of motions in the star-chamber, and it was my hap to clear the bar, that no man was left to move any thing, which my lords were pleased to note they never saw before. To-morrow is a sealing day; Thursday is the funeral day; so that I pray your lordship to direct me whether I shall attend his Majesty Friday or Saturday. Friday hath some reliques of business, and the commissioners of treasure have appointed to meet; but to see his Majesty, is to me above all.

I have set down *de bene esse*, Suffolk's cause, the third sitting next term; if the wind suffer the commission of Ireland to be sped. I ever more and more rest

Your lordship's most obliged friend and faithful servant,

FR. VERULAM, CANC.

This 11th May, 1619.

CCXV. TO THE LORD CHANCELLOR.†

My most honourable lord,

I acquainted his Majesty with your letter at the first opportunity after I received it, who was very well pleased with that account of your careful and speedy despatch of business, &c.

Yours, &c.

G. BUCKINGHAM.

Greenwich, 13th May, 1619.

P. S. Your business had been done before this, but I knew not whether you would have the attorney or solicitor to draw it.

CCXVI. TO THE LORD CHANCELLOR.‡

My noble lord,

I showed your letter of thanks to his Majesty, who says there are too many in it for so small a favour, which he holdeth too little to encourage so well a deserving servant. For myself, I shall ever rejoice at the manifestation of his Majesty's favour towards you, and will contribute all that is in me to the increasing his good opinion; ever resting

Your lordship's faithful friend and servant,

G. BUCKINGHAM.

CCXVII. TO MY VERY LOVING FRIENDS SIR THOMAS LEIGH AND SIR THOMAS PUCKERING, KNIGHTS AND BARONETS.§

After my hearty commendations, being informed by the petition of one Thomas Porten, a poor Yorkshireman, of a heavy accident by fire, whereby his house, his wife, and a child, together with all his goods, were utterly burnt and consumed; which misfortune, the petitioner suggests with much eagerness, was occasioned by the wicked practices and conjurations of one John Clarkson of Rowington in the county of Warwick, and his daughter, persons of a wandering condition, affirming, for instance, that one Mr. Hailes of Warwick did take from the said Clarkson certain books of conjuration and witchcraft: that the truth of the matter may be rightly known, and that Clarkson and his daughter, if there be ground for it, may answer the law according to the merit of so heinous a fact, I have thought good to wish and desire you to send for Clarkson and his daughter, and as upon due examination you shall find cause, to take order for their forthcoming, and answering of the matter at the next assize for the county of York; and also to confer with Mr. Hailes, whether he took from the said Clarkson any such book of conjuration, as the petitioner pretends he did, and to see them in safe custody. Whereupon I desire to be certified how you find the matter; and your doing thereupon. So not doubting of your special care and diligence herein, I bid you heartily farewell, and rest

Your very loving friend,

FR. VERULAM, CANC.

York-house, 15 May, 1619.

* Stephens's Second Collection, p. 93. † Ibid. p. 94. ‡ Ibid. § Ibid.

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CCXVIII. TO THE MARQUIS OF BUCKINGHAM.*

My very good lord,

I send his Majesty a volume of my lord of Bangor's and my lord Sheffield, whereof I spake when I left his Majesty at Theobald's. His Majesty may be pleased, at his own good time and pleasure, to cast his eye upon it. I purpose at my coming to London to confer with the chief justice as his Majesty appointed: and to put the business of the pursevants in a way, which I think will be best by a commission of oyer and terminer; for the star-chamber, without confession, is long seas. I should advise that this point of the pursevants were not single, but that it be coupled in the commission with the offences of keepers of prisons hereabouts: it hath a great affinity; for pursevants are but ambulatory keepers, and it works upon the same party, of the papists; and it is that wherein many of his Majesty's and the council's severe charges have been hitherto unfruitful; and it doth a great deal of mischief. I have some other reasons for it. But of this it will be fittest to advertise more particularly, what I have resolved of on advice, upon conference with the chief justice. I am wonderful glad to hear of the king's good health. God preserve his Majesty and your lordship. I ever rest

Your lordship's most obliged friend and faithful servant,

FR. VERULAM, CANC.

Gorhambury, this last of July, 1619.

CCXIX. TO THE LORD CHANCELLOR.†

My honourable lord,

Your lordship hath sent so good news to his Majesty, that I could have wished you had been the reporter of it yourself; but seeing you came not, I cannot but give you thanks for employing me in the delivering of that which pleased his Majesty so well, whereof he will put your lordship in mind, when he seeeth you. I am glad we are come so near together, and hoping to see you at Windsor, I rest

Your lordship's faithful friend and servant,

G. BUCKINGHAM.

29 Aug. 1619.

CCXX. TO THE LORD CHANCELLOR.‡

My honourable lord,

As I was reading your lordship's letter, his Majesty came, and took it of my hands, when he knew from whom it came, before I could read the paper enclosed: and told me that you had done like a wise counsellor: first setting down the state of the question, and then propounding the difficulties, the rest being to be done in its own time.

I am glad of this occasion of writing to your lordship, that I may now let your lordship understand his Majesty's good conceit and acceptation of your service, upon your discourse with him at Windsor, which though I heard not myself, yet I heard his Majesty much commend it both for the method and the affection you showed therein to his affairs, in such earnest manner, as if you made it your only study and care to advance his Majesty's service. And so I rest

Your lordship's faithful friend and servant,

G. BUCKINGHAM.

Wanstead, 9 Sept. 1619.

CCXXI. TO THE MARQUIS OF BUCKINGHAM.§

My very good lord,

I think it my duty to let his Majesty know what I find in this cause of the *ore tenus*. For as his Majesty hath good experience, that when his business comes upon the stage, I carry it with strength and resolution; so in the proceedings I love to be wary and considerate.

I wrote to your lordship by my last, that I hoped by the care I had taken, the business would go well, but without that care I was sure it would not go well. This I meant because I had had conference with the two chief justices, Sir Edward Coke being present, and handled the matter so, that not without much ado I left both the chief justices firm to the cause and satisfied.

But calling to mind that in the main business, notwithstanding I and the chief justices went one way, yet the day was not good, and I should be loth to see more of such days, I am not without some apprehension. For though we have Sir Edward Coke earnest and forward, insomuch as he advised the *ore tenus*, before I knew it at Wanstead, and now bound the Dutchmen over to the star-chamber, before I was made privy; unto both which proceedings I did nevertheless give approbation; yet if there should be either the major part of the votes the other way, or any main distraction, though we bear it through, I should think it a matter full of inconvenience. But that which gives me most to think, is the carriage of Mr. Attorney, which sorteth neither with the business, nor with himself: for, as I hear from divers, and partly perceive, he is fallen from earnest to be cool and faint: which weakness, if it should make the like alteration at the bar, it might overthrow the cause. All the remedy which is in my power, is by the advice of the judges to draw some other of the learned counsel to his help; which he, I know, is unwilling with, but that is all one.

This I thought it necessary to write, lest the king should think me asleep, and because I know that his Majesty's judgment is far better than mine. But I for my part mean to go on roundly; and so I ever rest

Your lordship's most obliged friend and faithful servant,

Octob. 9, 1619. FR. VERULAM, CANC.

* Stephens's Second Collection, p. 95. † Ibid. p. 96. ‡ Ibid. p. 96. § Ibid. p. 97.

If the king in his great wisdom should any ways incline to have the *ore tenus* put off, then the way were to command that the matter of the *ore tenus* should be given in evidence, by way of aggravation in the main cause. And it is true, that if this precursory matter goeth well, it giveth great entrance into the main cause; if ill, contrariwise, it will do hurt and disadvantage to the main.

CCXXII. TO THE LORD CHANCELLOR.*

My honourable lord,

The news of this victory hath so well pleased his Majesty, that he giveth thanks to all; and I among the rest, who had no other part but the delivering of your letter, had my part of his good acceptation, which he would have rewarded after the Roman fashion with every man a garland, if it had been now in use; but after the fashion of his gracious goodness, he giveth your lordship thanks: and would have you deliver the like in his Majesty's name to Sir Edward Coke, and the judges. Your news which came the first, gave his Majesty a very good breakfast, and I hope his health will be the better after it.

Your lordship's faithful friend and servant,

G. BUCKINGHAM.

14 Oct. 1619.

This letter was indorsed,

Thanks on the success in the ore tenus *against the Dutch.*

CCXXIII. TO THE MARQUIS OF BUCKINGHAM.†

My very good lord,

These things which I write now and heretofore in this cause, I do not write so as any can take knowledge that I write; but I despatch things *ex officio* here, and yet think it fit inwardly to advertise the king what doth occur. And I do assure your lordship, that if I did serve any king whom I did not think far away wiser than myself, I would not write in the midst of business, but go on of myself.

This morning, notwithstanding my speech yesterday with the duke,‡ he delivered this letter enclosed, and I having cleared the room of all save the court and learned counsel, whom I required to stay, the letter was read a little before our hour of sitting. When it was read, Mr. Attorney began to move, that my lord should not acknowledge his offences as he conceived he had committed them, but as they were charged; and some of the lords speaking to that point, I thought fit to interrupt and divert that kind of question; and said, before we considered of the extent of my lord's submission, we were first to consider of the extent of our own duty and power; for that I conceived it was neither fit for us to stay proceeding, nor to move his Majesty in that which was before us in course of justice: unto which, being once propounded by me, all the lords and the rest *una voce* assented. I would not so much as ask the question, whether, though we proceeded, I should send the letter to his Majesty, because I would not straiten his Majesty in any thing.

The evidence went well, I will not say I sometime holp it, as far as was fit for a judge; and at the rising of the court, I moved their lordships openly, whether they would not continue this cause from day to day till it were ended; which they thought not fit, in regard of the general justice which would be delayed in all courts. Yet afterwards within I prevailed so far, as we have appointed to sit Wednesday, Thursday, and Friday, and to sit by eight of the clock, and so to despatch it before the king come, if we can. God preserve and prosper you. I ever rest

Your lordship's most obliged friend and faithful servant,

FR. VERULAM, CANC.

This 22 October, Friday at 4 of the clock, 1619.

CCXXIV. TO THE LORD CHANCELLOR.§

My honourable lord,

I have received your letters by both your servants, and have acquainted his Majesty with them, who is exceedingly pleased with the course you have held in the earl of Suffolk's business, and holdeth himself so much the more beholden to you, because you sent the letter of your own motion, without order or consent of the lords, whereby his Majesty is not tied to an answer. His Majesty hath understood by many, how worthily your lordship hath carried yourself both in this and the Dutch business: for which he hath commanded me to give you thanks in his name, and seeth your care to be so great in all things that concern his service, that he cannot but much rejoice in the trust of such a servant, which is no less comfort to

Your lordship's faithful friend and servant,

G. BUCKINGHAM.

Royston, 23 Oct. 1619.

Indorsed thus,

On my lord of Bucks enclosing a letter of submission from my lord of Suffolk.

CCXXV. TO THE MARQUIS OF BUCKINGHAM.‖

My very good lord,

My lord of Suffolk's cause is this day sentenced. My lord and his lady fined together at 30,000*l.* with imprisonment in the Tower at their own charge. Bingley at 2000*l.* and committed to the Fleet. Sir

* Stephens's Second Collection, p. 99. † Ibid.
‡ Of Lenox.
§ Stephens's Second Collection, p. 101.
‖ Ibid. p. 102.

Edward Coke did his part, I have not heard him do better, and began with a fine of 100,000*l.* but the judges first, and most of the rest, reduced it as before. I do not dislike that things passed moderately; and, all things considered, it is not amiss, and might easily have been worse.

There was much speaking of interceding for the king's mercy: which, in my opinion, was not so proper for a sentence. I said, in conclusion, that mercy was to come *ex mero motu*, and so left it: I took some other occasion pertinent to do the king honour, by showing how happy he was in all other parts of his government, save only in the manage of his treasure by his officers.

I have sent the king a new bill for Sussex; for my lord of Nottingham's certificate was true, and I told the judges of it before; but they neglected it. I conceive the first man, which is newly set down, is the fittest. God ever preserve and prosper you.

Your lordship's most obliged friend and faithful servant,

FR. VERULAM, CANC.

Nov. 13, 1619.

CCXXVI. TO THE MARQUIS OF BUCKINGHAM.*

My very good lord,

I do not love to interlope by writing in the midst of business; but because his Majesty commanded me to acquaint him with any occurrence which might cross the way, I have thought fit to let his Majesty know what hath passed this day.

This day, which was the day set down, the great cause of the Dutchmen was entered into. The pleading being opened, and the case stated by the counsel; the counsel of the defendants made a motion to have certain examinations taken concerning the old defendants suppressed, because they were taken since the last hearing.

I set the business in a good way, and showed they were but supplemental, and that at the last hearing there were some things extrajudicial alleged *ad infirmandum conscientiam judicis*, and therefore there was more reason these should be used *ad informandum conscientiam judicis*, and that there was order for it. The order was read, and approved both by the court, and the defendants' own counsel; but it was alleged, that the order was not entered time enough, whereby the defendants might likewise examine: wherein certainly there was some slip or forgetfulness in Mr. Attorney or Brittain that followed it, which I wish had been otherwise; yet it went fair out of the court.

But after dinner my lords were troubled about it, and after much dispute we have agreed to confer silently and *sine strepitu* to-morrow, and set all straight, calling the judges, and the learned counsel, with whom I have spoken this evening, I think, to good purpose. For in good faith, I am fain to be *omnibus omnia*, as St. Paul saith, to set forward his Majesty's service.

I discern a kind of inclination to take hold of all accidents to put off the cause, whereunto neither I shall give way, nor I hope his Majesty; to-morrow, if cause be, I shall write more, but I hope all shall be well. I ever rest

Your lordship's most obliged friend and faithful servant,

FR. VERULAM, CANC.

Friday night, Nov. 19, 1619.

* Stephens's Second Collection, p. 103.

CCXXVII. TO THE MARQUIS OF BUCKINGHAM.†

My very good lord,

I have conferred with Sir Lionel Cranfield, according to his Majesty's special commandment, touching two points of value, for the advancement, the one present, the other speedy, of his Majesty's revenue.

The first is of the currants, to restore the imposition of five shillings sixpence, laid in the late queen's time, and drawn down unduly, to serve private turns, to three shillings four pence; which will amount to above three thousand pounds yearly increase.

The other is of the tobacco, for which there is offered 2000*l.* increase yearly, to begin at Michaelmas next, as it now is, and 3000*l.* increase, if the plantations of tobacco here within land be restrained.

I approve in mine own judgment both propositions, with these cautions: That for the first the farmers of the currants do by instrument under their seals relinquish to the king all their claim thereto by any general words of their patent. And for the second, that the bargain be concluded and made before the proclamation go forth; wherein perhaps there will occur some doubt in law, because it restraineth the subject in the employment of his freehold at his liberty. But being so many ways *pro bono publico*, I think it good enough.

His Majesty may therefore be pleased to write his letter to the commissioners of the treasury, signifying his Majesty's pleasure directly in both points to have them done, and leaving to us the consideration *de modo*. God ever prosper you. I rest

Your lordship's most obliged friend and faithful servant,

FR. VERULAM, CANC.

Nov. 22, 1619.

† Ibid. p. 104.

CCXXVIII. TO THE MARQUIS OF BUCKINGHAM.‡

My very good lord,

I send the submission of Sir Thomas Lake, drawn in such form as upon a meeting with me, of the chief justice and the learned counsel, was conceived agreeable to his Majesty's meaning and directions;

‡ Ibid. p. 105.

yet lest we should err, we thought good to send it to his Majesty. It is to be returned with speed, or else there will be no day in court to make it. God bless and prosper you. I rest

Your lordship's most obliged friend and faithful servant,

FR. VERULAM, CANC.

28 Nov. 1619.

CCXXIX. TO THE LORD CHANCELLOR.*

MY HONOURABLE LORD,

I HAVE acquainted his Majesty with your lordship's letter, and with the submission you sent drawn for Sir Thomas Lake, which his Majesty liketh well; and because he served him in so honourable a place, is graciously pleased that he maketh submission in writing, so that my lady of Exeter be contented and the lords, whom his Majesty would have you acquaint therewith. And so I rest

Your lordship's faithful friend and servant,

G. BUCKINGHAM.

Newmarket, 29 Nov. 1619.

CCXXX. TO THE MARQUIS OF BUCKINGHAM.†

MY VERY GOOD LORD,

WE sentence to-morrow, but I write to-day, because I would not leave the king in suspense.

I shall write not so good news as I would, but better than I expected.

We met amongst ourselves to-day, which I find was necessary, more than convenient. I gave aim that the meeting was not to give a privy verdict, or to determine what was a good proof or not a good proof, nor who was guilty or not guilty, but only to think of some fit proportion of the fines, that there mought be less distraction in the sentence, in a cause so scattered. Some would have entered into the matter itself, but I made it good, and kept them from it.

I perceive the old defendants will be censured, as well as the new, which was the gole, and I am persuaded the king will have a great deal of honour of the cause. Their fines will be moderate, but far from contemptible. The attorney did very well to-day; I perceive he is a better pleader than a director, and more eloquent than considerate.

Little thinks the king what ado I have here, but I am sure I acquit my trust. To-morrow I will write particularly. God ever preserve you.

Your lordship's most obliged friend and faithful servant,

FR. VERULAM, CANC.

Tuesday afternoon, this 7th Dec. 1619.

* Stephen's Second Collection, p. 106. † Ibid.

The marquis of Buckingham writes that he had acquainted his Majesty with this letter, who commanded him to give the lord chancellor thanks for his speed in advertising those things that pass, and for the great care he ever seeth his lordship has in his service.

CCXXXI. TO THE LORD CHANCELLOR.‡

MY LORD,

His Majesty having seen in this great business your exceeding care and diligence in his service by the effect which hath followed thereupon, hath commanded me to give you many thanks in his name, and to tell you that he seeth you play the part of all in all, &c.

Yours, &c.

G. BUCKINGHAM.

Newmarket, 10 Dec. 1619.

Indorsed,

In the Dutch Cause.

CCXXXII. TO THE MARQUIS OF BUCKINGHAM.§

MY VERY GOOD LORD,

To keep form, I have written immediately to his Majesty of justice Croke's death, and send your lordship the letter open, wishing time were not lost. God preserve and prosper you.

Your lordship's ever,

FR. VERULAM, CANC.

24 Jan. 1619.

CCXXXIII. TO THE MARQUIS OF BUCKINGHAM.‖

MY VERY GOOD LORD,

I DOUBT not but Sir Giles Montpesson advertiseth your lordship how our revenue business proceeds. I would his Majesty had rested upon the first names; for the additionals, specially the exchequer man, doth not only weaken the matter, but weakeneth my forces in it, he being thought to have been brought in across. But I go on, and hope good service will be done.

For the commissions to be published in the star-chamber, for which it pleaseth his Majesty to give me special thanks, I will have special care of them in time. God ever prosper you.

Your lordship's most obliged friend and faithful servant,

FR. VERULAM, CANC.

10 Feb. 1619.

‡ Ibid. p. 107. § Ibid. p. 108. ‖ Ibid.

CCXXXIV. TO THE KING.*

MAY IT PLEASE YOUR MOST EXCELLENT MAJESTY,

ACCORDING to your commandment, we met together yesterday at Whitehall, and there consulted what course were fittest to be taken now in this business of your Majesty's attorney-general, both for the satisfying your own honour, as also for calling in the late exorbitant charter of the city; which are the two ends, as we conceive, that your Majesty proposed unto yourself.

To effect both which, we humbly presume to present thus much unto your Majesty as our opinion. First, that an information be put into the star-chamber, as we formerly advised, against your attorney as delinquent, against the mayor, &c. as interested, and against the recorder also, mixtly with some touch of charge.

That the submission by letter offered by Mr. Attorney is no way satisfactory for your Majesty's honour; but is to be of record by way of answer, and deduced to more particulars.

That any submission or surrender of the patents by the city should be also of record in their answer; and no other can be received with your Majesty's honour, but by answer in court: the same to come merely of themselves, without any motion on your Majesty's behalf directly or indirectly; which being done in this form, it will be afterwards in your Majesty's choice and pleasure to use mercy, and to suspend any farther proceedings against your attorney.

That it is of necessity as well for the putting in of this information, as for your Majesty's other urgent and public services in that and other courts, to have a sequestration presently of your attorney, and a provisional commission to some other, during your Majesty's pleasure, to execute that charge. For both which, instruments legal shall be provided as soon as your Majesty's pleasure is known. To which we humbly and dutifully submit our advice and opinion, beseeching God to bless your Majesty's sacred person with continuance and increase of much health and happiness: wherewith, humbly kissing your royal hands, we rest

Your Majesty's most humble and faithful subjects and servants,

FR. VERULAM, CANC. GEO. CALVERT,
T. ARUNDEL, JUL. CÆSAR,
ROBERT NAUNTON, EDW. COKE.

At your Majesty's Palace of Whitehall, June 16, 1620.

CCXXXV. TO THE MARQUIS OF BUCKINGHAM.†

MY VERY GOOD LORD,

I HAVE lately certified his Majesty on the behalf of Sir George Chaworth, by secretary Calvert, touching the place of a remembrancer in the chancery for setting down of causes. And because the gentleman telleth me, the king thought my certificate a little doubtful; he desired me to write to your lordship, touching my approbation more plainly. It is true, that I conceive it to be a good business, and will be for the service of the court, and ease of the subject; I will look it shall be accompanied with good cautions.

We ruffle over business here in council apace, and I think to reasonable good purpose. By my next I will write of some fit particulars. I ever rest

Your most obliged friend and faithful servant,

FR. VERULAM, CANC.

June 21, 1620.

CCXXXVI. TO THE MARQUIS OF BUCKINGHAM.‡

MY VERY GOOD LORD,

THE tobacco business is well settled in all points. For the coals, they that brought the offer to secretary Calvert, do very basely shrink from their words; but we are casting about to piece it and perfect it. The two goose-quills Maxwell and Alured have been pulled, and they have made submissions in that kind which the board thought fit: for we would not do them the honour to require a recantation of their opinion, but an acknowledgment of their presumption.

His Majesty doth very wisely, not showing much care or regard to it, yet really to suppress their licentious course of talking and writing. My old lord Burghley was wont to say, that the Frenchman when he hath talked, he hath done; but the Englishman when he hath talked, he begins. It evaporateth malice and discontent in the one, and kindleth it in the other. And therefore upon some fit occasion I wish a more public example. The king's state, if I should now die and were opened, would be found at my heart, as queen Mary said of Calais; we find additionals still, but the consumption goeth on. I pray God give his Majesty resolution, passing by at once all impediments and less respects, to do that which may help it, before it be irremediable. God ever preserve and prosper your lordship.

Your lordship's most obliged friend and faithful servant,

FR. VERULAM, CANC.

23 July, 1620.

I have stayed the thousand pounds set upon Englefield for his Majesty, and given order for levying it.

CCXXXVII. TO THE MARQUIS OF BUCKINGHAM.§

MY VERY GOOD LORD,

ONE gave me a very good precept for the stone; that I should think of it most when I feel it least.

* Stephens's Second Collection, p. 109. † Ibid. p. 110.
‡ Ibid. p. 111. § Ibid. p. 112.

This I apply to the king's business, which surely I revolve most when I am least in action; whereof at my attendance I will give his Majesty such account as can proceed from my poor and mean abilities, which as his Majesty out of grace may think to be more than they are, so I out of desire may think sometime they can effect more than they can. But still it must be remembered, that the stringing of the harp, nor the tuning of it, will not serve, except it be well played on from time to time.

If his Majesty's business or commandments require it, I will attend him at Windsor, though I would be glad to be spared, because quick airs at this time of the year do affect me. At London, and so at Theobald's and Hampton-Court, I will not fail, God willing, to wait upon his Majesty. Meanwhile I am exceeding glad to hear his Majesty hath been lusty and well this progress. Thus, much desiring to see your lordship, 'cujus amor tantum mihi creseit in horas,' as the poet saith, I ever remain

Your lordship's most obliged friend and faithful servant,

FR. VERULAM, CANC.

Gorhambury, this 30th of Aug. 1620.

CCXXXVIII. TO THE MARQUIS OF BUCKINGHAM.*

My very good lord,

I write now only a letter of thanks to his Majesty, for that I hear, in my absence he was pleased to express towards me, though unworthy, a great deal of grace and good opinion before his lords; which is much to my comfort, whereunto I must ever impute your lordship as accessary. I have also written to him what signification I received from secretary Naunton of his Majesty's will and pleasure, lest in so great a business there should be any mistaking.

The pain of my foot is gone, but the weakness doth a little remain, so as I hope within a day or two to have full use of it. I ever remain

Your lordship's most obliged friend and faithful servant,

FR. VERULAM, CANC.

2 Octob. 1620.

CCXXXIX. TO THE KING.†

It may please your Majesty,

I thought myself an unfortunate man that I could not attend you at Theobald's. But I hear that your Majesty hath done, as God Almighty useth to do, which is to turn evil into good, in that your Majesty hath been pleased upon that occasion to express before your lords your gracious opinion and favour towards me, which I most humbly thank your Majesty for, and will aspire to deserve.

Secretary Naunton this day brought me your pleasure in certain notes; that I should advise with the two chief justices, old parliament men, and Sir Edward Coke, who is also their senior in that school, and Sir Randall Crewe the last speaker, and such other judges as we should think fit, touching that which mought in true policy, without packing or degenerate arts, prepare to a parliament, in case your Majesty should resolve of one to be held; and withal he signified to me some particular points, which your Majesty very wisely had deduced.

All your Majesty's business is *super cor meum*, for I lay it to heart, but this is a business *secundum cor meum*; and yet, as I will do your Majesty all possible good services in it, so I am far from seeking to impropriate to myself the thanks, but shall become *omnibus omnia*, as St. Paul saith, to attain your Majesty's ends.

As soon as I have occasion, I will write to your Majesty touching the same, and will have special care to communicate with my lords, in some principal points, though all things are not at first fit for the whole table. I ever rest

Your Majesty's most bounden and most devoted servant,

FR. VERULAM, CANC.

2 Oct. 1620.

Your Majesty needeth not to doubt but that I shall carry the business with that secrecy which appertaineth.

CCXL. TO THE MARQUIS OF BUCKINGHAM.‡

My very good lord,

Yesterday I called unto us the two chief justices, and serjeant Crewe, about the parliament business. To call more judges, I thought not good. It would be little to assistance, much to secrecy. The distribution of the business we made was into four parts.

I. The perusing of the former grievance, and of things of like nature which have come since.

II. The consideration of a proclamation, with the clauses thereof, especially touching elections; which clauses nevertheless, we are of opinion, should be rather monitory than exclusive.

III. The inclusive: that is to say, what persons were fit to be of the house, tending to make a sufficient and well-composed house of the ablest men of the kingdom, fit to be advised with *circa arduæ regni*, as the style of the writs goeth, according to the pure and true institution of a parliament; and of the means to place such persons without novelty or much observation. For this purpose we made some lists of names of the prime counsellors, and principal statesmen or courtiers; of the gravest or wisest lawyers; of the most respected and best tempered knights and gentlemen of the county. And here *obiter* we did not forget to consider who were the *boutefeus* of the last session, how many of them are dead, how many reduced, and how many remain, and what were fit to be done concerning them.

* Stephens's Second Collection, p. 113.

† Ibid. p. 114.

‡ Ibid. p. 115.

IV. The having ready of some commonwealth bills, that may add respect and acknowledgment of the king's care; not wooing bills to make the king and his graces cheap; but good matter to set them on work, that an empty stomach do not feed upon humour.

Of these four points, that which concerneth persons is not so fit to be communicated with the council-table, but to be kept within fewer hands. The other three may, when they are ripe.

Meanwhile I thought good to give his Majesty an account what is done, and in doing, humbly craving his direction if any thing be to be altered or added; though it may be ourselves shall have second thoughts, this being but the result of our first meeting.

The state of his Majesty's treasure still maketh me sad, and I am sorry I was not at Theobald's to report it, or that it was not done by my fellows: it is most necessary we do it faithfully and freely: for to flatter in this, were to betray his Majesty with a kiss. I humbly pray his Majesty to think of my former counsel; and this I will promise, that whomsoever his Majesty shall make treasurer, if his Majesty shall direct him to have relation to my advice, I will continue the same care and advice I do now, and much more cheerfully when I shall perceive that my propositions shall not be *literæ scriptæ in glacie*.

Meanwhile, to keep the commission in doing of somewhat worth the doing, it may please his Majesty to take knowledge, that upon our report we had agreed to make remonstrance to him, that we thought Ireland might, if his Majesty leave it to our care, be brought by divers good expedients to bear their own charge; and therefore his Majesty may be pleased by his commandment to set us in hand with it out of hand. God ever prosper you.

Your lordship's most obliged friend and faithful servant,

FR. VERULAM, CANC.

Octob. 7, 1620.

CCXLI. TO THE LORD CHANCELLOR.*

My lord,

I have acquainted his Majesty with your letter, and labour in his service, for which he commandeth me to give you thanks, and to let your lordship know, that he liketh exceeding well your method held by the judges, which could not be amended, and concurreth with you and your opinions. First, touching the proclamation, that it should be monitory and persuasive, rather than compulsive: and, secondly, that the point concerning the persons, who should be admitted, and who avoided, is fit to be kept from the knowledge of the council-table, and to be carried with all secrecy.

For the business of Ireland, his Majesty had heard of it before, and gave commandment to the master of the wards, that it should be hastened and set in hand with all speed, which his Majesty doubteth not but is done by this time. Touching your advice for a treasurer, his Majesty is very mindful of it, and will let you know as much at his return, when he will speak farther with your lordship of it. And so I rest

Yours, &c.

G. BUCKINGHAM.

Royston, 9 October, 1620.

* Stephens's Second Collection, p. 117.
† Rawley's Resuscitatio.

CCXLII. THIS LETTER WAS WRITTEN WITH THE KING'S OWN HAND, TO MY LORD CHANCELLOR VERULAM, UPON HIS LORDSHIP'S SENDING TO HIS MAJESTY HIS *NOVUM ORGANUM*.†

My lord,

I have received your letter, and your book, than the which you could not have sent a more acceptable present unto me. How thankful I am for it, cannot better be expressed by me, than by a firm resolution I have taken; first, to read it through with care and attention, though I should steal some hours from my sleep: having otherwise, as little spare time to read it, as you had to write it. And then, to use the liberty of a true friend, in not sparing to ask you the question in any point whereof I shall stand in doubt: *nam ejus est explicare, cujus est condere:* as, on the other part, I will willingly give a due commendation to such places, as, in my opinion, shall deserve it. In the mean time I can with comfort assure you, that you could not have made choice of a subject more befitting your place, and your universal and methodical knowledge; and in the general, I have already observed, that you jump with me, in keeping the mid way between the two extremes; as also in some particulars I have found that you agree fully with my opinion. And so praying God to give your work as good success as your heart can wish, and your labours deserve, I bid you heartily farewell.

JAMES R.

October 16, 1620.

CCXLIII. TO THE MARQUIS OF BUCKINGHAM.‡

My very good lord,

I send his Majesty a form of a proclamation for the parliament, which I thought fit to offer first to his Majesty's perusal, before I acquainted the council.

For that part which concerneth the foreign business, his Majesty will graciously consider, how easy it is for me to mistake, or not to attain; which his Majesty in his wisdom will pardon, correct, and direct.

‡ Stephens's Second Collection, p. 121.

For that part touching the elections, I have communicated it with my colleagues, Sir Edward Coke, the two chief justices, and serjeant Crewe, who approve it well; and we are all of opinion, that it is not good to have it more peremptory, more particular, nor more sharp.

We are thinking of some commonwealth laws, amongst which I would have one special for the maintenance of the navy, as well to give occasion to publish, to his Majesty's honour, what hath been already done; as, to speak plainly, to do your lordship honour in the second place; and besides, it is agreeable to the times. God ever prosper you.

Your lordship's most obliged friend and faithful servant,

Oct. 18, 1620. FR. VERULAM, CANC.

CCXLIV. DRAUGHT OF A PROCLAMATION FOR A PARLIAMENT, REFERRED TO IN THE PRECEDING LETTER.*

As in our princely judgment we hold nothing more worthy of a christian monarch, than the conservation of peace at home and abroad; whereby effusion of christian blood and other calamities of war are avoided, trade is kept open, laws and justice retain their due vigour and play, arts and sciences flourish, subjects are less burdened with taxes and tallages, and infinite other benefits redound to the state of a commonweal; so in our own practice we suppose there hath been seldom any king, that hath given more express testimonies and real pledges of his desire to have peace conserved, than we have done in the whole course of our regiment.

For neither have we, for that which concerns ourselves, been ready to apprehend or embrace any occasions or opportunities of making war upon our neighbours; neither have we omitted, for that which may concern the states abroad, any good office or royal endeavour for the quenching of the sparks of troubles and discords in foreign parts. Wherein, as we have been always ready and willing, so we wish that we had been always as happy and prevailing in our advices and counsels that tended to that end.

And yet do we not forget, that God hath put into our hands a sceptre over populous and warlike nations, which might have moved us to second the affection and disposition of our people, and to have wrought upon it for our own ambition, if we had been so minded. But it hath suffieed unto us to seek a true and not swelling greatness, in the plantations and improvements of such parts of our dominions, as have, in former times, been more desolate or uncivil, and in the maintaining of all our loving subjects in general in tranquillity and security, and the other conditions of good government, and happy times. But amongst other demonstrations of our constant purpose and provident care to maintain peace, there was never such a trial, nor so apparent to the world, as in a theatre, as our persisting in the same resolution, since the time that our dear son-in-law was elected and accepted king of Bohemia; by how much the motives tending to shake and assail our said resolution were the more foreible. For neither did the glory of having our dearest daughter and son-in-law to wear a crown; nor the extreme alacrity of our people devoted to that cause; nor the representations, which might be set before us of dangers, if we should suffer a party in christendom, held commonly adverse and ill-affected to our state and government, to gather farther reputation and strength, transport us to enter into an auxiliary war, in prosecution of that quarrel: but contrariwise, finding the justice of the cause not so clear, as that we could be presently therein satisfied; and weighing with ourselves likewise, that if the kingdom of Bohemia had continued in the house of Austria, yet nevertheless the balance of christendom had stood in no other sort than it had done for many years before, without increase of party; and chiefly fearing that the wars in those parts of Germany, which have been hitherto the bulwark of christendom against the approaches of the Turk, might by the intestine dissensions allure and let in the common enemy; we did abstain to declare or engage ourselves in that war, and were contented only to give permission to the ambassador of our son-in-law, to draw some voluntary helps of men and money from our subjects, being a matter that violated no treaty, and could not be denied in ease of so near a conjunction.

But while we contained ourselves in this moderation, we find the event of war hath much altered the case, by the late invasion of the Palatinate, whereby, howsoever under the pretenee of a diversion, we find our son in faet expulsed in part, and in danger to be totally dispossessed of his aneient inheritance and patrimony, so long continued in that noble line; whereof we eannot but highly resent, if it should be alienated and ravished from him in our times, and to the prejudiee of our grandchildren and line royal. Neither can we think it safe for us in reason of state, that the county Palatine earrying with itself an electorate, and having been so long in the hands of prinees of our religion and no way depending upon the house of Austria, should now beeome at the disposing of that house: being a matter, that indeed might alter the balance of christendom importantly, to the weakening of our estate, and the estate of our best friends and confederates.

Wherefore, finding a coneurrence of reasons and respects of religion, nature, honour, and estate; all of them inducing us in no wise to endure so great an alteration; we are resolved to employ the uttermost of our forees and means, to recover and re-settle the said Palatinate to our son and our descendants, purposing nevertheless, according to our former inclination so well grounded, not altogether to intermit, if the occasions give us leave, the treatics of peaee and accord, which we have already begun, and whereof the coming on of the winter, and the counterpoise of the aetions of war, hitherto may give us as yet some appearance of hope.†

* Stephens's Second Collection, p. 122.

† Against this passage, in the margin, is written, "I pray God this hold."

But forasmuch as it were great improvidence to depend upon the success of such treaties, and therefore good policy requires that we should be prepared for a war which we intend for the recovery and assuring of the said Palatinate, with the dependences, a design of no small charge and difficulty, the strength and conjunctures of the adverse party considered, we have thought good to take into our princely and serious consideration, and that with speed, all things that may have relation to such a designment; amongst which we hold nothing more necessary than to confer and advise with the common council of our kingdom, upon this so important a subject.

For although the making of war or peace be a secret of empire, and a thing properly belonging to our high prerogative royal, and imperial power; yet nevertheless, in causes of that nature, which we shall think fit not to reserve, but to communicate, we shall ever think ourselves much assisted and strengthened by the faithful advice and general assent of our loving subjects.

Moreover, no man is so ignorant, as to expect that we should be any ways able, moneys being the sinews of war, to enter into the list against so great potentates, without some large and bountiful help of treasure from our people; as well towards the maintenance of the war, as towards the relief of our crown and estate. And this the rather, for that we have now, by the space of full ten years, a thing unheard of in late times, subsisted by our own means, without being chargeable to our people, otherwise than by some voluntary gifts of some particulars, which though in total amounted to no great matter, we thankfully acknowledge at their hands; but as, while the affairs abroad were in greater calm, we did content ourselves to recover our wants by provident retrenchment of charge, and honourable improvement of our own, thinking to wear them out without troubling our people; so in such a state of christendom, as seemeth now to hang over our heads, we durst no longer rely upon those slow remedies, but thought necessary, according to the ancient course of our progenitors, to resort to the good affections and aids of our loving subjects.

Upon these considerations, and for that also, in respect of so long intermission of a parliament, the times may have introduced some things fit to be reformed, either by new laws, or by the moderate desires of our loving subjects, dutifully intimated unto us, wherein we shall ever be no less ready to give them all gracious satisfaction, than their own hearts can desire, we have resolved, by the advice of our privy council, to hold a parliament at our city of Westminster.

And because as well this great cause, there to be handled amongst the rest, and to be weighed by the beam of the kingdom, as also the true and ancient institution of parliament, do require the lower house, at this time, if ever, to be compounded of the gravest, ablest, and worthiest members that may be found: we do hereby, out of the care of the common good, wherein themselves are participant, without all prejudice to the freedom of elections, admonish all our loving subjects, that have votes in the elections of knights and burgesses, of these few points following.

First, That they cast their eyes upon the worthiest men of all sorts, knights and gentlemen, that are lights and guides in their countries, experienced parliament-men, wise and discreet statesmen, that have been practised in public affairs, whether at home or abroad, grave and eminent lawyers, substantial citizens and burgesses, and generally such as are interested and have portion in the estate.

Secondly, That they make choice of such as are well affected in religion, without declining either on the one hand to blindness and superstition, or on the other hand to schism or turbulent disposition.

Thirdly, and lastly, That they be truly sensible, not to disvalue or disparage the house with bankrupts and necessitous persons, that may desire long parliaments only for protection; lawyers of mean account and estimation; young men that are not ripe for grave consultations; mean dependants upon great persons, that might be thought to have their voices under command, and such like obscure and inferior persons: so that, to conclude, we may have the comfort to see before us the very face of a sufficient and well composed house, such as may be worthy to be a representative of the third estate of our kingdom, fit to nourish a loving and comfortable meeting between us and our people, and fit to be a noble instrument, under the blessing of Almighty God, and our princely care and power, and with the loving conjunction of our prelates and peers, for the settling of so great affairs as are before expressed.

CCXLV. TO THE LORD CHANCELLOR.*

My honourable lord,

I have showed your letter and the proclamation to his Majesty, who expecting only, according as his meaning was, directions therein for the well ordering of the elections of the burgesses, findeth a great deal more, containing matter of state, and the reasons of calling the parliament: whereof neither the people are capable, nor is it fit for his Majesty to open unto them, but to reserve to the time of their assembling, according to the course of his predecessors, which his Majesty intendeth to follow. The declaring whereof in the proclamation would cut off the ground of his Majesty's and your lordship's speech, at the proper time; his Majesty hath therefore extracted somewhat of the latter part of the draught you have sent, purposing to take a few days' space to set down himself what he thinketh fit, and to make it ready against his return hither, or to Theobald's at the farthest, and then to communicate it to your lordship, and the rest of the lords. And so I rest

Yours, &c.

G. BUCKINGHAM.

Royston, 19 Oct. 1620.

* Stephens's Second Collection, p. 128.

CCXLVI. TO SIR* HENRY WOTTON.

My very good cousin,

The letter which I received from your lordship upon your going to sea, was more than a compensation for any former omission; and I shall be very glad to entertain a correspondence with you in both kinds which you write of; for the latter, I am now ready for you, having sent you some ore of that mine. I thank you for your favours to Mr. Meantys, and I pray continue the same. So wishing you out of your honourable exile, and placed in a better orb, I rest

Your lordship's affectionate kinsman and assured friend,

FR. VERULAM, CANC.†

York-house, Oct. 20, 1620.

CCXLVII. LORD OF ST. ALBANS TO MR. MATTHEW.‡

Sir,

The report of this act, which I hope will prove the last of this business, will probably, by the weight it carries, fall and seize on me. And therefore, not now at will, but upon necessity, it will become me to call to mind what passed; and, my head being then wholly employed about invention, I may the worse put things upon the account of mine own memory. I shall take physic to-day, upon this change of weather, and vantage of leisure; and I pray you not to allow yourself so much business, but that you may have time to bring me your friendly aid before night, &c.

CCXLVIII. TO MR. MATTHEW, BELIEVING HIS DANGER LESS THAN HE FOUND IT.§

Sir,

I say to you, upon the occasion which you give me in your last, *Modicæ fidei, quare dubitasti?* I would not have my friends, though I know it to be out of love, too apprehensive either of me or for me; for, I thank God, my ways are sound and good, and I hope God will bless me in them. When once my master, and afterwards myself, were both of us in extremity of sickness, which was no time to dissemble, I never had so great pledges and certainties of his love and favour: and that which I knew then, such as took a little poor advantage of these later times, know since. As for the nobleman that passed that way by you, I think he is fallen out with me for his pleasure, or else, perhaps, to make good some of his own mistakings. For he cannot in his heart but think worthily of my affection and well deserving towards him; and as for me, I am very sure that I love his nature and parts.

CCXLIX. TO MR. MATTHEW, EXPRESSING GREAT ACKNOWLEDGMENT AND KINDNESS.‖

Sir,

I have been too long a debtor to you for a letter, and especially for such a letter, the words whereof were delivered by your hand, as if it had been in old gold: for it was not possible for entire affection to be more generously and effectually expressed. I can but return thanks to you; or rather indeed such an answer, as may better be of thoughts than words. As for that which may concern myself, I hope God hath ordained me some small time, whereby I may redeem the loss of much. Your company was ever of contentment to me, and your absence of grief; but now it is of grief upon grief. I beseech you therefore make haste hither, where you shall meet with as good a welcome as your own heart can wish.

CCL. TO MR. MATTHEW, OWNING HIS IMPATIENT ATTENTION TO DO HIM SERVICE.¶

Sir,

It is not for nothing that I have deferred my essay *De amicitia;* whereby it hath expected the proof of your great friendship towards me: whatsoever the event be, (wherein I depend upon God, who ordains the effects, the instrument, all,) yet your incessant thinking of me, without loss of a moment of time, or a hint of occasion, or a circumstance of endeavour, or the stroke of a pulse, in demonstration

* Mr. Stephens observes, when this letter was written, upon the occasion of my lord chancellor's publishing his *Novum Organum*, Sir Henry Wotton, so eminent for his many embassies, great learning, candour, and other accomplishments, was resident at Vienna, endeavouring to quench that fire which began to blaze in Germany, upon the proclaiming the elector Palatine king of Bohemia. How grateful a present this book was to Sir Henry, cannot better be expressed than by his answer to this letter: which though it may be found in his *Remains*, the reader will not be displeased to see part of it transcribed in this place.

"Right honourable and my very good lord,

"I have your lordship's letters dated October 20, and I have withal, by the care of my cousin Meautys, and by your own special favour, three copies of that work, wherewith your lordship hath done a great and ever-living benefit to all the children of nature, and to nature herself in her uttermost extent and latitude; who never before had so noble nor so true an interpreter, or, as I am ready to style your lordship, never so inward a secretary of her cabinet. But of your said work, which came but this week to my hands, I shall find occasion to speak more hereafter: having yet read only the first book thereof, and a few aphorisms of the second. For it is not a banquet that men may superficially taste, and put up the rest in their pockets; but in truth a solid feast, which requireth due mastication—&c.

"But I am gone farther than I meant in speaking of this excellent labour, while the delight I yet feel, and even the pride that I take in a certain congeniality, as I may term it, with your lordship's studies, will scant let me cease. And indeed I owe your lordship, even by promise, which you are pleased to remember, and thereby doubly binding me, some trouble this way; I mean by the commerce of philosophical experiments, which surely, of all other, is the most ingenious traffic."

† Stephens's Second Collection, p. 129.
‡ Sir Tobie Matthew's Collection of Letters, p. 20.
§ Ibid. p. 32. ‖ Ibid. p. 69. ¶ Ibid. p. 53.

of your affection to me, doth infinitely tie me to you. Commend my service to my friend. The rest to-morrow, for I hope to lodge at London this night, &c.

Secrecy I need not recommend, otherwise than that you may recommend it over to our friend; both because it prevents opposition, and because it is both the king's and my lord marquis's nature, to love to do things unexpected.

CCLI. TO THE MARQUIS OF BUCKINGHAM.*

OUR VERY GOOD LORD,

WE thought it our duty to impart to his Majesty, by your lordship, one particular of parliament business, which we hold it our part to relate, though it be too high for us to give our opinion of it.

The officers that make out the writs of parliament addressed themselves to me the chancellor to know, whether they should make such a writ of summons to the prince, giving me to understand, that there were some precedents of it; which I the chancellor communicated with the rest of the committees for parliament business; in whose assistance I find so much strength that I am not willing to do any thing without them: whereupon we, according to his Majesty's prudent and constant rule, for observing in what reigns the precedents were, upon diligent search have found as followeth.

That king Edward I. called his eldest son prince Edward to his parliament in the thirtieth year of his reign, the prince then being about the age of eighteen years; and to another parliament in the four and thirtieth year of his reign.

Edward III. called the Black Prince, his eldest son, to his parliament in the five and twentieth, eight and twentieth, and two and fortieth years of his reign.

Henry IV. called prince Henry to his parliaments in the first, third, eighth, and eleventh years of his reign, the prince being under age in the three first parliaments; and we find in particular, that the eighth year, the prince sat in the upper house in days of business, and recommended a bill to the lords.

King Edward IV. called prince Edward, his son, to his parliament, in *anno* 22 of his reign, being within age.

King Henry VII. called prince Arthur to his parliament in the seventh year of his reign, being within age.

Of king Edward VI. we find nothing, his years were tender, and he was not created prince of Wales.

And for prince Henry, he was created prince of Wales during the last parliament at which he lived.

We have thought it our duty to relate to his Majesty what we have found, and withal that the writs of summons to the prince are not much differing from the writs to the peers; for they run *in fide et ligeancia*, and sometime *in fide et homagio in quibus nobis tenemini*, and after, *consilium nobis impensuri circa ardua regni*. Whereby it should seem that princes came to parliament not only in the days of solemnity, when they came without writ, but also on the days of sitting. And if it should be so, then the prince may vote, and likewise may be of a committee of the upper house, and consequently may be of a conference with the lower house, and the like.

This might have been made more manifest as to the presence, and acts of the prince in days of sitting, if, through the negligence of officers, the journal books of the upper house before the reign of king Henry VIII. were not all missing.

All which we thought it appertained to our care to look through, and faithfully to represent to his Majesty: and having agreed secrecy amongst ourselves, and enjoined it to the inferior officers, we humbly desire to know his Majesty's pleasure, whether he will silence the question altogether, or make use of it for his service, or refer it to his council, or what other course he will be pleased to take according to his great wisdom and good pleasure.

This we have despatched the sooner, because the writs of summons must have forty days distance from the first days of the parliament. And for the other parts of our accounts, his Majesty shall hear from us, by the grace of God, within few days; evermore praying for his Majesty's prosperity, and wishing your lordship much happiness.

Your lordship's to be commanded,

FR. VERULAM, CANC. EDW. COKE, H. MONTAGU, HENRY HOBARTE, RAN. CREW.

York-house, 21 Oct. 1620.

CCLII. TO THE MARQUIS OF BUCKINGHAM.†

MY VERY GOOD LORD,

WE have, these two days past, made report to the board of our parliament committee, upon relation whereof, for some things we provide, for some things we arm.

The king, by my lord treasurer's signification, did wisely put it upon a consult, whether the patents, which we mentioned in our joint letters, were at this time to be removed by act of council before parliament. I opined (but yet somewhat like Ovid's mistress, that strove, but yet as one that would be overcome) that yes. My reasons:

That men would go better and faster to the main errand.

That these things should not be staged, nor talked of, and so the less fuel to the fire.

That in things of this nature, wherein the council had done the like in former particulars, which I enumerated, before parliament, near parliament, during parliament, the council were to keep their wonted centinel, as if they thought not of a parliament, to destroy in other patents as concealments.

The reasons on the other side were:

That it would be thought but an humouring of the parliament, being now in the calends of a parliament, and that after parliament they would come up again.

* Stephens's Second Collection, p. 129.

† Stephens's Second Collection, p. 137.

That offered graces, by reason and experience, lose their thanks.

That they are to be suffered to play upon something, since they can do nothing of themselves.

That the choosing out of some things, when perhaps their minds might be more upon other things, would do no great effect.

That former patents taken away by act of council, were upon the complaints of particular persons; whereas now it should seem to be done *tanquam ex officio.*

To this I yielded, though, I confess, I am yet a little doubtful to the point of *suavibus modis.* But it is true that the speech of these, though in the lower house, may be contemned; and if way be given to them, as I writ to your lordship of some of them in my last, it will sort to your honour. For other things, the lords have put them in a very good way, of which I will give express account when I see his Majesty, as also of other observations concerning parliament. For if his Majesty said well, that when he knew the men and the elections, he would guess at the success; the prognostics are not so good as I expected, occasioned by the late occurrents abroad, and the general licentious speaking of state matters, of which I wrote in my last. God ever keep you.

Your lordship's most obliged friend and faithful servant,

16 Dec. 1620. FR. VERULAM, CANC.

CCLIII. TO THE LORD CHANCELLOR.*

My honourable lord,

As soon as his Majesty's convenience would permit, I have acquainted him with the draught of the proclamation your lordship sent me by his Majesty's direction: his Majesty liketh it in every point so well, both in matter and form, that he findeth no cause to alter a word in it, and would have your lordship acquaint the lords of the council with it, though he assureth himself, no man can find any thing in it to be changed, and to take order for the speedy setting it forth. And so I rest

Yours, &c.

G. BUCKINGHAM.

Theobald's, 21 Dec. 1620.

CCLIV. TO THE LORD CHANCELLOR.†

I have acquainted his Majesty with your letter and the enclosed: the matter which his Majesty hath been thinking upon for his speech concerneth both the points of the institution of a parliament, and of the end for which this is called; yet his Majesty thinketh it fit that some extract be made out of it, which needeth to be but very short, as he will show you at his return.

Yours, &c.

G. BUCKINGHAM.

Theobald's, 19 Jan. 1620.

* Stephens's Second Collection, p. 133. † Ibid.

CCLV. TO THE MARQUIS OF BUCKINGHAM.‡

My very good Lord,

Yesternay I know was no day; now I hope I shall hear from your lordship, who are my anchor in these floods. Meanwhile to ease my heart, I have written to his Majesty the enclosed; which I pray your lordship to read advisedly, and to deliver it, or not to deliver it, as you think good. God ever prosper your lordship.

Yours ever what I can,

FR. ST. ALBAN, CANC.

March 25, 1621.

CCLVI. TO THE KING.§

It may please your most excellent Majesty,

Time hath been when I have brought unto you *gemitum columbæ* from others, now I bring it from myself. I fly unto your Majesty with the wings of a dove, which once within these seven days I thought would have carried me a higher flight. When I enter into myself, I find not the materials of such a tempest as is come upon me: I have been, as your Majesty knoweth best, never author of any immoderate counsel, but always desired to have things carried *suavibus modis.* I have been no avaricious oppressor of the people. I have been no haughty, or intolerable, or hateful man, in my conversation or carriage: I have inherited no hatred from my father, but am a good patriot born. Whence should this be? For these are the things that use to raise dislikes abroad.

For the house of commons, I began my credit there, and now it must be the place of the sepulture thereof; and yet this parliament, upon the message touching religion, the old love revived, and they said, I was the same man still, only honesty was turned into honour.

For the upper house, even within these days, before these troubles, they seemed as to take me into their arms, finding in me ingennity, which they took to be the true straight line of nobleness, without any crooks or angles.

And for the briberies and gifts wherewith I am charged, when the books of hearts shall be opened, I hope I shall not be found to have the troubled fountain of a corrupt heart, in a depraved habit of taking rewards to pervert justice; howsoever I may be frail, and partake of the abuses of the times.

And therefore I am resolved, when I come to my answer, not to trick up my innocency, as I writ to the lords, by cavillations or voidances; but to speak to them the language that my heart speaketh to me, in excusing, extenuating, or ingenuously confessing; praying to God to give me the grace to see the bottom of my faults, and that no hardness of heart do steal upon me, under show of more neatness of conscience, than is cause. But not to trouble your Majesty any longer, craving pardon for this long mourning letter; that which I thirst after, *as the*

‡ Ibid. p. 136. § Ibid

hart after the streams, is, that I may know, by my matchless friend that presenteth to you this letter, your Majesty's heart (which is an *abyssus* of goodness, as I am an *abyssus* of misery) towards me. I have been ever your man, and counted myself but an usufructuary of myself, the property being yours. And now making myself an oblation to do with me as may best conduce to the honour of your justice, the honour of your mercy, and the use of your service, resting as clay in your Majesty's gracious hands.

March 25, 1621. FR. ST. ALBAN, CANC.

CCLVII. TO THE KING.*

IT MAY PLEASE YOUR MOST EXCELLENT MAJESTY,

I THINK myself infinitely bounden to your Majesty, for vouchsafing me access to your royal person, and to touch the hem of your garment. I see your Majesty imitateth Him that would not *break the broken reed, nor quench the smoking flax;* and as your Majesty imitateth Christ, so I hope assuredly my lords of the upper house will imitate you: and unto your Majesty's grace and mercy, and next to my lords, I recommend myself. It is not possible, nor it were not safe, for me to answer particulars till I have my charge; which when I shall receive, I shall without fig-leaves or disguise excuse what I can excuse, extenuate what I can extenuate, and ingenuously confess what I can neither clear nor extenuate. And if there be any thing which I mought conceive to be no offence, and yet is, I desire to be informed, that I may be twice penitent, once for my fault, and the second time for my error. And so submitting all that I am to your Majesty's grace, I rest———

20 April, 1621.

CCLVIII. TO THE KING'S MOST EXCELLENT MAJESTY.†

IT MAY PLEASE YOUR MAJESTY,

IT hath pleased God, for these three days past, to visit me with such extremity of head-ache, upon the hinder part of my head, fixed in one place, that I thought verily it had been some imposthumation. And then the little physic that I have, told me, that either it must grow to a congelation, and so to a lethargy; or to break, and so to a mortal fever and sudden death: which apprehension, and chiefly the anguish of the pain, made me unable to think of any business. But now that the pain itself is assuaged to be tolerable, I resume the care of my business, and therein prostrate myself again, by my letter, at your Majesty's feet.

Your Majesty can bear me witness, that, at my last so comfortable access, I did not so much as move your Majesty, by your absolute power of pardon, or otherwise, to take my cause into your hands, and to interpose between the sentence of the house; and, according to my own desire, your Majesty left it to the sentence of the house, and it was reported by my lord treasurer.

But now, if not *per omnipotentiam*, as the divines speak, but *per potestatem suaviter disponentem*, your Majesty will graciously save me from a sentence, with the good liking of the house, and that cup may pass from me, it is the utmost of my desires.

This I move with the more belief, because I assure myself that, if it be reformation that is sought, the very taking away the seal, upon my general submission, will be as much in example, for this four hundred years, as any farther severities.

The means of this I most humbly leave unto your Majesty. But surely I conceive, that your Majesty opening yourself in this kind to the lords counsellors, and a motion from the prince, after my submission, and my lord marquis using his interest with his friends in the house, may effect the sparing of a sentence, I making my humble suit to the house for that purpose, joined with the delivery of the seal into your Majesty's hands.

This is the last suit I shall make to your Majesty in this business, prostrating myself at your mercy-seat, after fifteen years' service, wherein I have served your Majesty in my poor endeavours with an entire heart, and, as I presumed to say unto your Majesty, am still a virgin for matters which concern your person or crown; and now only craving, that after eight steps of honour I be not precipitated altogether.

But because he that hath taken bribes is apt to give bribes, I will go farther, and present your Majesty with a bribe. For if your Majesty give me peace and leisure, and God give me life, I will present your Majesty with a good history of England, and a better digest of your laws. And so concluding with my prayers, I rest

Your Majesty's afflicted, but ever devoted servant,

21 April, 1621. FR. ST. ALBAN, CANC.

CCLIX. TO THE PRINCE OF WALES.‡

IT MAY PLEASE YOUR HIGHNESS,

WHEN I call to mind, how infinitely I am bound to your highness, that stretched forth your arm to save me from a sentence; that took hold of me to keep me from being plunged deep in a sentence; that hath kept me alive in your gracious memory and mention since the sentence; pitying me as, I hope, I deserve, and valuing me above that I can deserve: I find my words almost as barren as my fortunes, to express unto your highness the thankfulness I owe. Therefore I can but resort to prayers to Almighty God to clothe you with his most rich and precious blessings, and likewise joyfully to meditate upon those he hath conferred upon you already; in that he hath made you to the king your father, a principal part of his safety, contentment, and continuance: in yourself so judicious, accomplished, and graceful in all your doings, with more

* Stephens's Second Collection, p. 138.

† Ibid. p. 143. ‡ Ibid. p. 145.

virtues in the buds (which are the sweetest) than have been known in a young prince, of long time; with the realm so well beloved, so much honoured, as it is men's daily observation how nearly you approach to his Majesty's perfections; how every day you exceed yourself; how, compared with other princes, which God hath ordained to be young at this time, you shine amongst them; they rather setting off your religious, moral, and natural excellencies, than matching them, though you be but a second person. These and such like meditations I feed upon, since I can yield your highness no other retribution. And for myself, I hope by the assistance of God above, of whose grace and favour I have had extraordinary signs and effects during my afflictions, to lead such a life in the last acts thereof, as whether his Majesty employ me, or whether I live to myself, I shall make the world say that I was not unworthy such a patron.

I am much beholden to your highness's worthy servant Sir John Vaughan, the sweet air and loving usage of whose house hath already much revived my languishing spirits; I beseech your highness, thank him for me. God ever preserve and prosper your highness.

Your highness's most humble and most bounden servant,

FR. ST. ALBAN.

1 June, 1621.

CCLX. TO THE KING.*

IT MAY PLEASE YOUR MOST EXCELLENT MAJESTY,

I HUMBLY thank your Majesty for my liberty, without which timely grant, any farther grace would have come too late. But your Majesty that did shed tears in the beginning of my trouble, will, I hope, shed the dew of your grace and goodness upon me in the end. Let me live to serve you, else life is but the shadow of death to

Your Majesty's most devoted servant,

FR. ST. ALBAN.

4 June, 1621.

CCLXI. TO THE MARQUIS OF BUCKINGHAM.†

MY VERY GOOD LORD,

I HEARTILY thank your lordship for getting me out of prison; and now my body is out, my mind nevertheless will be still in prison, till I may be on my feet to do his Majesty and your lordship faithful service. Wherein your lordship, by the grace of God, shall find that my adversity hath neither spent, nor pent my spirits. God prosper you.

Your lordship's most obliged friend and faithful servant,

4 June, 1621. FR. ST. ALBAN.

* Stephens's Second Collection, p. 146.

CCLXII. A MEMORIAL FOR HIS MAJESTY'S SERVICE.‡

FOR that your Majesty is pleased to call for my opinion concerning the sacred intention you have to go on with the reformation of your courts of justice, and relieving the grievances of your people, which the parliament hath entered into; I shall never be a recusant, though I be confined, to do you service.

Your Majesty's star-chamber, next your court of parliament, is your highest chair. You never came upon that mount, but your garments did shine before you went off. It is the supreme court of judicature ordinary, it is an open council; nothing I would think can be more seasonable, if your other appointments permit it, than if your Majesty will be pleased to come thither in person, the morrow after this term, (which is the time anniversary, before the circuits and the long vacation,) and there make an open declaration:

That you purpose to pursue the reformation, which the parliament hath begun. That all things go well, in all affairs, when the ordinary and extraordinary are well mingled and tempered together. That in matters of your treasure, you did rely upon your parliament for the extraordinary, but you were ever desirous to do what you could by improvements, retrenchments, and the like, to set the ordinary in good frame and establishment. That you are in the same mind in matter of reformation of justice, and grievance, to assist yourself with the advice and authority of parliament at times; but meanwhile to go on with the same intentions, by your own regal power and care. That it doth well in church-music when the greatest part of the hymn is sung by one voice, and then the choir at all times falls in sweetly and solemnly, and that the same harmony sorteth well in monarchy between the king and his parliament.

That all great reformations are best brought to perfection by a good correspondence between the king and his parliament, and by well sorting the matters and the times; for in that which the king doth in his ordinary administration, and proceedings, neither can the information be so universal, nor the complaint so well encouraged, nor the references so many times free from private affection, as when the king proceedeth by parliament; on the other side, that the parliament wanteth time to go through with many things; besides, some things are of that nature, as they are better discerned and resolved by a few than by many. Again, some things are so merely regal, as it is not fit to transfer them; and many things, whereof it is fit for the king to have the principal honour and thanks.

Therefore, that according to these differences and distributions, your Majesty meaneth to go on, where the parliament hath left, and to call for the memorials, and inchoations of those things, which have passed in both houses, and to have them pass the file of your council, and such other assistance as shall be thought fit to be called respectively, accord-

† Ibid. p. 147. ‡ Ibid.

ing to the nature of the business, and to have your learned counsel search precedents what the king hath done for matter of reformation, as the parliament hath informed themselves by precedents what the parliament hath done: and thereupon that the clock be set, and resolutions taken, what is to be holpen by commission, what by act of council, what by proclamation, what to be prepared for parliament, what to be left wholly for parliament.

That if your Majesty had done this before a parliament, it mought have been thought to be done to prevent a parliament, whereas, now it is to pursue a parliament; and that by this means many grievances shall be answered by deed, and not by word; and your Majesty's care shall be better than any standing committee in this interim between the meetings of parliament.

For the particulars, your Majesty in your grace and wisdom will consider, how improper and how unwarranted a thing it is for me, as I now stand, to send for entries of parliament, or for searchers for precedents, whereupon to ground an advice; and besides, what I should now say may be thought by your Majesty (how good an opinion soever you have of me) much more by others, to be busy or officious, or relating to my present fortunes.

CCLXIII. TO THE MARQUIS OF BUCKINGHAM.*

My very good lord,

Your lordship, I know, and the king both, mought think me very unworthy of that I have been, or that I am, if I should not by all means desire to be freed from the restraint which debarreth me from approach to his Majesty's person, which I ever so much loved, and admired; and severeth me likewise from all conference with your lordship, which is my second comfort. Nevertheless, if it be conceived that it may be matter of inconvenience, or envy, my particular respects must give place: only in regard of my present urgent occasions, to take some present order for the debts that press me most, I have petitioned his Majesty to give me leave to stay at London till the last of July, and then I will dispose of my abode according to the sentence. I have sent to the prince to join with you in it, for though the matter seem small, yet it importeth me much. God prosper you.

Your lordship's true servant,

FR. ST. ALBAN.

20 June, 1621.

CCLXIV. TO THE MARQUIS OF BUCKINGHAM.†

My very good lord,

I humbly thank your lordship for the grace and favour you did both to the message and messenger, in bringing Mr. Meantys to kiss his Majesty's hands, and to receive his pleasure from himself. My riches in my adversity have been, that I have had a good master, a good friend, and a good servant.

I perceive by Mr. Meautys his Majesty's inclination, that I should go first to Gorhambury; and his Majesty's inclinations have ever been with me instead of directions. Wherefore I purpose, God willing, to go thither forthwith, humbly thanking his Majesty, nevertheless, that he meant to have put my desire, in my petition contained, into a way, if I had insisted upon it; but I will accommodate my present occasions as I may, and leave the times, and seasons, and ways, to his Majesty's grace and choice.

Only I desire his Majesty to bear with me if I have pressed unseasonably. My letters out of the Tower were *de profundis;* and the world is a prison, if I may not approach his Majesty, finding in my heart as I do. God preserve and prosper his Majesty, and your lordship.

Your lordship's faithful and bounden servant,

22 June, 1621. FR. ST. ALBAN.

CCLXV. TO THE MARQUIS OF BUCKINGHAM.‡

My very good lord,

I thank God I am come very well to Gorhambury, whereof I thought your lordship would be glad to hear sometimes; my lord, I wish myself by you in this stirring world, not for any love to place or business, for that is almost gone with me, but for my love to yourself, which can never cease in

Your lordship's most obliged friend and true servant,

FR. ST. ALBAN.

Being now out of use and out of sight, I recommend myself to your lordship's love and favour, to maintain me in his Majesty's grace and good intention.

CCLXVI. TO THE KING.§

It may please your most excellent Majesty,

I perceive by my noble and constant friend the marquis, that your Majesty hath a gracious inclination towards me, and taketh care of me, for fifteen years the subject of your favour, now of your compassion; for which I most humbly thank your Majesty. This same *nova creatura* is the work of God's pardon and the king's; and since I have the inward seal of the one, I hope well of the other.

'Utar,' saith Seneca to his master, 'magnis exemplis; nec meæ fortunæ, sed tuæ.' Demosthenes was banished for bribery of the highest nature, yet was recalled with honour; Marcus Livius was condemned for exactions, yet afterwards made consul and censor. Seneca banished for divers corruptions, yet was afterwards restored, and an instrument of

* Stephens's Second Collection, p. 150. † Ibid. p. 151. ‡ Ibid. p. 152. § Ibid.

that memorable *Quinquennium Neronis*. Many more. This, if it please your Majesty, I do not say for appetite of employment, but for hope that if I do by myself as is fit, your Majesty will never suffer me to die in want or dishonour. I do now feed myself upon remembrance, how when your Majesty used to go a progress, what loving and confident charges you were wont to give me touching your business. For as Aristotle saith, young men may be happy by hope, so why should not old men, and sequestered men, by remembrance? God ever prosper and preserve your Majesty.

Your Majesty's most bounden and devoted servant,

FR. ST. ALBAN.

16 July, 1621.

CCLXVII. TO THE LORD ST. ALBAN.*

My honourable lord,

I have delivered your lordship's letter of thanks to his Majesty, who accepted it very graciously, and will be glad to see your book, which you promised to send very shortly, as soon as it cometh. I send your lordship his Majesty's warrant for your pardon, as you desired it; but am sorry that in the current of my service to your lordship there should be the least stop of any thing; yet having moved his Majesty, upon your servant's intimation, for your stay in London till Christmas, I found his Majesty, who hath in all other occasions, and even in that particular already, to the dislike of many of your own friends, showed with great forwardness his gracious favour towards you, very unwilling to grant you any longer liberty to abide there: which being but a small advantage to you, would be a great and general distaste, as you cannot but easily conceive, to the whole state. And I am the more sorry for this refusal of his Majesty's falling in a time when I was a suitor to your lordship in a particular concerning myself, wherein though your servant insisted farther than, I am sure, would ever enter into your thoughts, I cannot but take it as a part of a faithful servant in him. But if your lordship, or your lady, find it inconvenient for you to part with the house, I would rather provide myself otherwise, than any way incommodate you, but will never slack any thing of my affection to do you service; whereof if I have not yet given good proof, I will desire nothing more, than the fittest occasion to show how much I am

Your lordship's faithful servant,

G. BUCKINGHAM.

Octob. 1621.

CCLXVIII. TO THE MARQUIS OF BUCKINGHAM.†

My very good lord,

An unexpected accident maketh me hasten this letter to your lordship, before I could despatch Mr. Meautys; it is that my lord keeper hath stayed my pardon at the seal. But it is with good respect; for he saith it shall be private, and then he would forthwith write to your lordship, and would pass it if he received your pleasure; and doth also show his reason of stay, which is, that he doubteth the exception of the sentence of parliament is not well drawn, nor strong enough; which if it be doubtful, my lord hath great reason. But sure I am, both myself, and the king, and your lordship, and Mr. Attorney, meant clearly, and I think Mr. Attorney's pen hath gone well. My humble request to your lordship is, that for my lord's satisfaction Mr. Solicitor may be joined with Mr. Attorney, and if it be safe enough, it may go on; if not it may be amended. I ever rest

Your lordship's most obliged friend and faithful servant,

FR. ST. ALBAN.

18 October, 1621.

CCLXIX. TO THE LORD ST. ALBAN.‡

My honourable lord,

I have brought your servant along to this place, in expectation of the letter from the lord keeper, which your lordship mentioneth in yours; but having not yet received it, I cannot make answer of the business you write of; and therefore thought fit not to detain your man here any longer, having nothing else to write, but that I always rest

Your lordship's faithful friend and servant,

G. BUCKINGHAM.

Hinchenbrook, 20 Oct. 1621.

CCLXX. TO THE LORD ST. ALBAN.§

My noble lord,

Now that I am provided of a house, I have thought it congruous to give your lordship notice thereof, that you may no longer hang upon the treaty, which hath been between your lordship and me, touching York-house; in which I assure your lordship, I never desired to put you to the least inconvenience. So I rest

Your lordship's servant,

G. BUCKINGHAM.

CCLXXI. TO THE LORD ST. ALBAN.‖

My lord,

I am glad your lordship understands me so rightly in my last letter. I continue still in the same mind, for, I thank God, I am settled to my contentment; and so I hope you shall enjoy yours, with the more, because I am so well pleased in mine. And, my lord, I shall be very far from taking it ill, if you part with it to any else, judging it alike un-

* Stephens's Second Collection, p. 153. † Ibid. p. 154. ‡ Ibid. p. 155. § Ibid. p. 156. ‖ Ibid

reasonableness, to desire that which is another man's, and to bind him by promise or otherwise not to let it to another.

My lord, I will move his Majesty to take commiseration of your long * imprisonment, which in some respects, both you and I have reason to think harder, than the Tower; you for the help of physic, your parley with your creditors, your conference for your writings, and studies, dealing with friends about your business: and I for this advantage to be sometimes happy in visiting and conversing with your lordship, whose company I am much desirous to enjoy, as being tied by ancient acquaintance to rest,

Your lordship's faithful friend and servant,

G. BUCKINGHAM.

CCLXXII. TO THE MARQUIS OF BUCKINGHAM.†

My very good lord,

Though I returned answer to your lordship's last honourable and kind letter, by the same way by which I received it; yet I humbly pray your lordship to give me leave to add these few lines. My lord, as God above is my witness, that I ever have loved and honoured your lordship as much, I think, as any son of Adam can love or honour a subject; and continue in as hearty and strong wishes of felicity to be heaped and fixed upon you as ever; so as low as I am, I had rather sojourn in a college in Cambridge, than recover a good fortune by any other than yourself. To recover yourself to me (if I have you not) or to ease your lordship in any thing, wherein your lordship would not so fully appear, or to be made participant of your favours in your way; I would use any man that were your lordship's friend. Secondly, if in any of my former letters I have given your lordship any distaste, by the style of them, or any particular passage, I humbly pray your lordship's benign construction and pardon. For I confess it is my fault, though it be some happiness to me withal, that I many times forget my adversity: but I shall never forget to be, &c.

5 March, 1621.

CCLXXIII. TO THE KING'S MOST EXCELLENT MAJESTY.‡

It may please your Majesty,

I acknowledge myself in all humbleness infinitely bounden to your Majesty's grace and goodness, for that, at the intercession of my noble and constant friend, my lord marquis, your Majesty hath been pleased to grant me that which the civilians say is *res inæstimabilis*, my liberty. So that now, whenever God calleth me, I shall not die a prisoner. Nay, farther, your Majesty hath vouchsafed to cast a second and iterate aspect of your eye of compassion upon me, in referring the consideration of my broken estate to my good lord the treasurer; which as it is a singular bounty in your Majesty, so I have yet so much left of a late commissioner of your treasure, as I would be sorry to sue for any thing that might seem immodest. These your Majesty's great benefits, in casting your bread upon the waters, (as the Scripture saith,) because my thanks cannot any ways be sufficient to attain, I have raised your progenitor, of famous memory, (and now I hope, of more famous memory than before,) king Henry VII. to give your Majesty thanks for me; which work, most humbly kissing your Majesty's hands, I do present. And because in the beginning of my trouble, when in the midst of the tempest I had a kenning of the harbour, which I hope now by your Majesty's favour I am entering into, I made a tender to your Majesty of two works, *A history of England*, and *A digest of your laws*, as I have, by a figure of *pars pro toto*, performed the one, so I have herewith sent your Majesty, by way of an epistle, a new offer of the other. But my desire is farther, if it stand with your Majesty's good pleasure, since now my study is my exchange, and my pen my factor, for the use of my talent; that your Majesty (who is a great master in these things) would be pleased to appoint me some task to write, and that I shall take for an oracle. And because my *Instauration* (which I esteem my great work, and do still go on with silence) was dedicated to your Majesty; and this *History of king Henry* VII. to your lively and excellent image the prince; if now your Majesty will be pleased to give me a theme to dedicate to my lord of Buckingham, whom I have so much reason to honour, I should with more alacrity embrace your Majesty's direction than my own choice. Your Majesty will pardon me for troubling you thus long. God evermore preserve and prosper you.

Your Majesty's poor beadsman most devoted,

FR. ST. ALBAN.

Gorhambury, 20 Mar. 1621.

CCLXXIV. TO THE RIGHT HONOURABLE HIS VERY GOOD LORD, THE LORD MARQUIS OF BUCKINGHAM, HIGH ADMIRAL OF ENGLAND.§

My very good lord,

These main and real favours which I have lately received from your good lordship, in procuring my liberty, and a reference of the consideration of my release, are such as I now find that in building upon your lordship's noble nature and friendship, I have built upon the rock, where neither winds nor waves can cause overthrow. I humbly pray your lordship to accept from me such thanks as ought to come from him whom you have much comforted in fortune, and much more comforted in showing your love and affection to him; of which also I have heard by my lord Falkland, Sir Edward Sackville, Mr. Matthews, and other ways.

* Restraint from coming within the verge of the court.
† From the original draught.
‡ Stephens's Second Collection, p. 164.
§ Ibid. p. 157.

I have written, as my duty was, to his Majesty thanks touching the same, by the letter I here put into your noble hands.

I have made also, in that letter, an offer to his Majesty of my service, for bringing into better order and frame the laws of England: the declaration whereof I have left with Sir Edward Sackville, because it were no good manners to clog his Majesty, at this time of triumph and recreation, with a business of this nature; so as your lordship may be pleased to call for it to Sir Edward Sackville when you think the time seasonable.

I am bold likewise to present your lordship with a book of my *History of king Henry the seventh.* And now that, in summer was twelve months, I dedicated a book to his Majesty; and this last summer, this book to the prince; your lordship's turn is next, and this summer that cometh (if I live to it) shall be yours. I have desired his Majesty to appoint me the task, otherwise I shall use my own choice; for this is the best retribution I can make to your lordship. God prosper you. I rest

Your lordship's most obliged friend and faithful servant,

FR. ST. ALBAN.

Gorhambury, this 20th of March, 1621.

CCLXXV.* TO FATHER REDEMPT. BARANZAN.†

Domine Baranzane,

Literas tuas legi libenter: cumque inter veritatis amatores ardor etiam eandorem generet, ad ea, quæ ingenue petiisti, ingenue respondebo.

Non est meum abdicare in totum syllogismum. Res est syllogismus magis inhabilis ad præcipua, quam inutilis ad plurima.

Ad mathematica quidni adhibeatur? Cum fluxus materiæ & inconstantia corporis physici illud sit, quod inductionem desideret; ut per eam veluti figatur, atque inde eruantur notiones bene terminatæ.

De metaphysica ne sis sollicitus. Nulla enim erit post veram physicam inventam; ultra quam nihil præter divina.

In physica prudenter notas, et idem tecum sentio, post notiones primæ classis, et axiomata super ipsas, per inductionem bene erute et terminata, tuto adhiberi syllogismum, modo inhibeatur saltus ad generalissima, et fiat progressus per scalam convenientem.

De multitudine instantiarum, quæ homines deterrere possit, hæc respondeo:

Primo, quid opus est dissimulatione? Aut copia instantiarum comparanda, aut negotium deserendum. Aliæ omnes viæ, utcunque blandiantur, imperviæ.

Secundo (quod et ipse notas) prærogativæ instantiarum, et modus experimentandi circa experimenta lucifera (quem aliquando trademus) de multitudine ipsarum plurimum detrahent.

Tertio, quid magni foret, rogo, si in describendis instantiis impleantur volumina, quæ historiam C. Plinii sextuplicent? In qua tamen ipsa plurima philologica, fabulosa, antiquitatis, non naturæ. Etenim veram historiam naturalem nihil aliud ingreditur præter instantias, connexiones, observationes, canones. Cogita altera ex parte immeosa volumina philosophica; facile perspicies maximæ solida esse maxime finita.

Postremo, ex nostra philosophandi methodo excipietur in via plurimorum operum utilium messis, quæ ex speculationibus aut disputationibus sterilis aut nulla est.

Historiam naturalem ad condendam philosophiam (ut et tu mones) ante omnia præopto; neque hoic rei deero, quantum in me est. Utinam habeam et adjutores idoneos. Neque in hac parte mihi quidpiam accidere poterit felicius, quam si tu, talis vir, primitias huic operi præbeas conscribendo historiam cœlestium, in qua ipsa tantum phænomena, atque una instrumenta astronomica, eorumque genera et usum; dein hypothescs præcipuas et maxime illustres, tam antiquas quam modernas, atque simul exactas restitutionum calculationes, et alia hujusmodi sincere proponas, absque omni dogmate et themate. Quod si huic cœlestium historiæ historiam cometarum adjeceris (de qua conficienda ecce tibi artículos quosdam et quasi topica particolaria) magnificum prorsus frontispicium historiæ naturali extruxeris, et optime de scientiarum instauratione mereueris, mihique gratissimum feceris.

Librum meum de progressu scientiarum traducendum commisi. Illa translatio, volente Deo, sub finem æstatis perficietur: eam ad te mittam.

Opera tua, quæ publici juris sunt, inspexi; magne certe subtilitatis et diligentiæ in via vestra. Novatores, quos nominas, Patricium, Telesium, etiam alios, quos prætermittis, legi. Possint esse tales innumeri velut etiam antiquis temporibus fuerunt Anaximenes, Anaxagoras, Democritus, Parmenides, et alii (nam Pythagoram ut superstitiosum omitto). Inter istos tam antiquos quam modernos differentiam facultatis agnosco maximam, veritatis perparvam. Summa rei est, si homines se rebus submittere velint, aliquid confiet; sin minus, ingenia ista redibunt in orbem.

Stabilita jam sit inter nos notitia; meque, ut cœpisti, maxime autem veritatem ama. Vale.

Tui amantissimus,

S. ALBANS.

Apud Ædes meas, Londini,
Junii ultimo, 1622.

CCLXXVI. TO THE KING.‡

It may please your most excellent Majesty,

In the midst of my misery, which is rather assuaged by remembrance, than by hope; my chiefest worldly comfort is, to think that since the time I had the first vote of the commons house of parliament for

* From Niceron, tom. III. p. 45.

† He was a Barnabite monk at Annecy in Savoy, who in his Lectures on Philosophy began to discard the authority of Aristotle. He died the 23 December, 1622, at the age of 33.

‡ Stephens's Second Collection, p. 158.

commissioner of the union, until the time that I was this last parliament chosen by both houses for their messenger to your Majesty in the petition of religion, (which two were my first and last services,) I was evermore so happy as to have my poor services graciously accepted by your Majesty, and likewise not to have had any of them miscarry in my hands. Neither of which points I can any ways take to myself, but ascribe the former to your Majesty's goodness, and the latter to your prudent directions; which I was ever careful to have and keep. For, as I have often said to your Majesty, I was towards you but as a bucket and a cistern, to draw forth and conserve; whereas yourself was the fountain. Unto this comfort of nineteen years' prosperity, there succeeded a comfort even in my greatest adversity, somewhat of the same nature; which is, that in those offences wherewith I was charged, there was not any one that had special relation to your Majesty, or any your particular commandments. For as towards Almighty God there are offences against the first and second table, and yet all against God; so with the servants of kings there are offences more immediate against the sovereign; although all offences against law are also against the king. Unto which comfort there is added this circumstance, that as my faults were not against your Majesty, otherwise than as all faults are; so my fall was not your Majesty's act, otherwise than as all acts of justice are yours. This I write not to insinuate with your Majesty, but as a most humble appeal to your Majesty's gracious remembrance, how honest and direct you have ever found me in your service; whereby I have an assured belief, that there is in your Majesty's own princely thoughts a great deal of serenity and clearness towards me your Majesty's now prostrate and cast down servant.

Neither (my most gracious sovereign) do I, by this mention of my services, lay claim to your princely grace and bounty, though the privilege of calamity doth bear that form of petition. I know well, had they been much more, they had been but my bounden duty. Nay, I must also confess, that they were from time to time, far above my merit, over and super-rewarded by your Majesty's benefits which you heaped upon me. Your Majesty was and is that master to me, that raised and advanced me nine times; thrice in dignity, and six times in office. The places indeed were the painfullest of all your services; but then they had both honour and profits. And the then profits might have maintained my now honour, if I had been wise. Neither was your Majesty's immediate liberality wanting towards me in some gifts, if I may hold them. All this I do most thankfully acknowledge, and do herewith conclude, that for any thing arising from myself to move your eye of pity towards me, there is much more in my present misery, than in my past services; save that the same your Majesty's goodness, that may give relief to the one, may give value to the other.

And indeed, if it may please your Majesty, this theme of my misery is so plentiful, as it need not be coupled with any thing else. I have been somebody by your Majesty's singular and undeserved favour, even the prime officer of your kingdom; your Majesty's arm hath been often laid over mine in council, when you presided at the table; so near I was. I have borne your Majesty's image in metal, much more in heart; I was never in nineteen year's service chidden by your Majesty, but contrariwise often overjoyed, when your Majesty would sometimes say, I was a good husband for you, though none for myself: sometimes, that I had a way to deal in business *suavibus modis*, which was the way which was most according to your own heart: and other most gracious speeches of affection and trust, which I feed on to this day. But why should I speak of these things which are now vanished, but only the better to express the downfal?

For now it is thus with me: I am a year and a half * old in misery: though I must ever acknowledge, not without some mixture of your Majesty's grace and mercy; for I do not think it possible, that any one whom you once loved should be totally miserable. Mine own means, through my own improvidence, are poor and weak, little better than my father left me. The poor things that I have had from your Majesty, are either in question or at courtesy. My dignities remain marks of your past favour, but burdens of my present fortune. The poor remnants which I had of my former fortunes, in plate or jewels, I have spread upon poor men unto whom I owed, scarce leaving myself a convenient subsistence. So as, to conclude, I must pour out my misery before your Majesty, so far as to say, *Si deseris tu, perimus.*

But as I can offer to your Majesty's compassion little arising from myself to move you, except it be my extreme misery, which I have truly laid open; so looking up to your Majesty's own self, I should think I committed Cain's fault, if I should despair. Your Majesty is a king whose heart is as unscrutable for secret motions of goodness, as for depth of wisdom. You are creator-like, factive and not destructive. You are the prince in whom hath been ever noted an aversation against any thing that savoured of a hard heart; as, on the other side, your princely eye was wont to meet with any motion that was made on the relieving part. Therefore as one that hath had the happiness to know your Majesty's near hand, I have (most gracious sovereign) faith enough for a miracle, and much more for a grace, that your Majesty will not suffer your poor creature to be utterly defaced, nor blot that name quite out of your book, upon which your sacred hand hath been so oft for the giving him new ornaments and additions.

Unto this degree of compassion, I hope God above (of whose mercy towards me, both in my prosperity and adversity, I have had great testimonies and pledges, though my own manifold and wretched unthankfulness might have averted them) will dispose your princely heart, already prepared to all piety. And why should I not think, but that that thrice noble prince, who would have pulled me out of the fire of a sentence, will help to pull me (if I may use that homely phrase) out of the mire of an

* Therefore this was wrote near the middle of 1622.

abject and sordid condition in my last days: and that excellent favourite of yours (the goodness of whose nature contendeth with the greatness of his fortune; and who counteth it a prize, a second prize, to be a good friend, after that prize which he carrieth to be a good servant) will kiss your hands with joy for any work of piety you shall do for me.* And as all commiserable persons, especially such as find their hearts void of all malice, are apt to think that all men pity them; so I assure myself that the lords of your council, who out of their wisdom and nobleness cannot but be sensible of human events, will in this way which I go, for the relief of my estate, further and advance your Majesty's goodness towards me. For there is, as I conceive, a kind of fraternity between great men that are, and those that have been, being but the several tenses of one verb; nay, I do farther presume, that both houses of parliament will love their justice the better, if it end not in my ruin; for I have been often told, by many of my lords, as it were in the way of excusing the severity of the sentence, that they knew they left me in good hands. And your Majesty knoweth well, I have been all my life long acceptable to those assemblies, not by flattery, but by moderation, and by honest expressing of a desire to have all things go fairly and well.

But if it may please your Majesty, (for saints I shall give them reverence, but no adoration, my address is to your Majesty, the fountain of goodness,) your Majesty shall by the grace of God, not feel that in gift, which I shall extremely feel in help; for my desires are moderate, and my courses measured to a life orderly and reserved, hoping still to do your Majesty honour in my way. Only I most humbly beseech your Majesty to give me leave to conclude with those words which necessity speaketh: Help me (dear sovereign lord and master) and pity me so far, as that I, that have borne a bag, be not now in my age forced in effect to bear a wallet; nor that I, that desire to live to study, may not be driven to study to live.† I most humbly crave pardon of a long letter, after a long silence. God of heaven ever bless, preserve, and prosper your Majesty.

Your Majesty's poor ancient servant and beadsman,

FR. ST. ALBAN.

CCLXXVII. TO MR. MATTHEW, EMPLOYING HIM TO DO A GOOD OFFICE WITH A GREAT MAN.‡

SIR,

I HAVE received your letter, wherein you mention some passages at large, concerning the lord you know of. You touched also that point in a letter which you wrote upon my lord's going over; which I answered, and am a little doubtful, whether mine ever came to your hands. It is true, that I wrote a little sullenly therein, how I conceived that my lord was a wise man in his own way, and perhaps thought it fit for him to be out with me; for at least I found no cause thereof in myself. As for the latter of these points, I am of the same judgment still; but for the former, I perceive by what you write, that it is merely some misunderstanding of his: and I do a little marvel at the instance, which had relation to that other crabbed man; for I conceived that both in passing that book, and (as I remember) two more, immediately after my lord's going over, I had showed more readiness than many times I use in like cases. But, to conclude, no man hath thought better of my lord than I have done. I know his virtues, and namely, that he hath much greatness of mind, which is a thing almost lost amongst men: nor can any body be more sensible and remembering than I am of his former favours; so that I shall be most glad of his friendship. Neither are the past occasions in my opinion such, as need either reparation or declaration; but may well go under the title of nothing. Now I had rather you dealt between us than any body else, because you are no way drenched in any man's humour. Of other things at another time; but this I was forward to write in the midst of more business than ever I had.

* Vouchsafe to express towards me. *Matth.*

† Although the subject matter of this and some other letters of the like nature hath given me occasion to make some remarks thereon already; yet I cannot omit taking notice, in this place, of what the learned Monsieur Le Clerc hath observed in the twelfth chapter of his Reflections upon Good and Bad Fortune. Where, in his discourse of liberality, and the obligations that are upon princes, &c. to extend their bounty to learned men, in respect of the benefit the world receives from them; he expresses his sense of the honour which was due to the memory of those who assisted Erasmus and Grotius, and his resentment of the neglect of king James, for deserting the lord Bacon: "One cannot read," saith he, "without indignation, that which is reported of the famous chancellor of England, Francis Bacon, whom the king suffered to languish in poverty, whilst he preferred worthless persons, to his dishonour. A little before his death this learned man writ to that prince a bemoaning letter;" and then cites this moving conclusion out of Howell's letters; which though that author thought it argued a little abjection of spirit in my lord Bacon; yet Monsieur Le Clerc thinks it showed a much lower in the king, to permit so able a man to lie under the necessity of making so sad a request, and yet withal to afford no relief.—*Stephens.*

‡ Sir Tobie Matthew's Second Collection of Letters, p. 34.

§ Stephens's Second Collection, p. 155.

‖ Sir Tobie Matthew's Collection of Letters, p. 51.

CCLXXVIII. TO THE LORD DIGBY, ON HIS GOING TO SPAIN.§

MY VERY GOOD LORD,

I NOW only send my best wishes to follow you at sea and land, with due thanks for your late great favours. God knows whether the length of your voyage will not exceed the size of my hour-glass: but whilst I live, my affection to do your lordship service shall remain quick under the ashes of my fortune.

CCLXXIX. TO MR. MATTHEW.‖

SIR,

IN this solitude of friends, which is the base court of adversity, where nobody almost will be seen stirring, I have often remembered this Spanish say-

ing, *Amor sin fin, no tiene fin.** This bids me make choice of your friend and mine, for his noble succours; not now towards the aspiring, but only the respiring of my fortunes. I, who am a man of books, have observed, that he hath both the magnanimity of the old Romans, and the cordiality of the old English; and withal, I believe, he hath the wit of both: sure I am, that for myself I have found him in both my fortunes, to esteem me so much above my just value, and to love me so much above the possibility of deserving, or obliging on my part, as if he were a friend created and reserved for such a time as this. You know what I have to say to the great lord, and I conceive it cannot pass so fitly to him by the mouth of any, as of this gentleman; and therefore do your best (which I know will be of power enough) to engage him both in the substance and to the secrecy of it: for I can think of no man but yourself, to be used by me in this, who are so private, so faithful, and so discreet a friend to us both; as on the other side, I dare swear he is, and know myself to be as true to you as your own heart.

CCLXXX. AN EXPOSTULATION TO THE MARQUIS OF BUCKINGHAM.†

My very good lord,

Your lordship will pardon me, if, partly in the freedom of adversity, and partly of former friendship, (the sparks whereof cannot but continue,) I open myself to your lordship, and desire also your lordship to open yourself to me. The two last acts which you did for me, in procuring the releasement of my fine, and my *Quietus est*, I acknowledge, were effects real and material of your love and favour; which, as to my knowledge, it never failed in my prosperity, so in these two things it seems not to have turned with the wheel. But the extent of these two favours is not much more than to keep me from persecution. For any thing farther, which might tend to my comfort and assistance, as I cannot say to myself, that your lordship hath forsaken me; so I see not the effects of your undeserved, yea undesired professions and promises; which being made to a person in affliction, have the nature, after a sort, of vows. But that which most of all makes me doubt of a change or cooling in your lordship's affection towards me, is, that being twice now at London, your lordship did not vouchsafe to see me, though by messages you gave me hope thereof, and the latter time I had begged it of your lordship.

The cause of change may either be in myself or your lordship. I ought first to examine myself, which I have done; and God is my witness, I find all well, and that I have approved myself to your lordship a true friend, both in the watery trial of prosperity, and in the fiery trial of adversity. If your lordship take any insatisfaction touching the house, I humbly pray you think better of it. For that motion to me was a second sentence more grievous than the first, as things then stood, and do yet stand: for it sentenced me to have lost both in my own opinion, and much more in the opinion of others, that which was saved to me, almost only, in the former sentence; and which was more dear to me than all that which was taken from me, which is your lordship's love and favour. For had it not been for that bitter circumstance, your lordship knows, that you might have commanded my life, and all that is mine. But surely it could not be that, nor any thing in me, which wrought the change. It is likely on the other part, that though your lordship in your nature I know to be generous and constant, yet I being now become out of sight, and out of use, your lordship having a flood of new friends, and your ears possessed perhaps by such as would not leave room for an old; your lordship may, even by course of the world, and the overbearing of others, be turned from me; and it were almost a miracle if it should be otherwise. But yet, because your lordship may still have so heroical a spirit, as to stand out in all these violent assaults, which might have alienated you from your friend; my humble suit to your lordship is, that remembering our former friendship, which began with your beginnings, and since that time hath never failed on my part, your lordship would deal clearly with me, and let me know whether I continue in your favour or no; and whether in those poor requests, which I may yet make to his Majesty (whose true servant I ever was and am) for the tempering of my misery, I may presume to use your lordship's favour and help as I have done; for otherwise it were a kind of stupidness in me, and a great trouble also to your lordship, for me not to discern the change, for your lordship to have an importuner, instead of a friend and a suitor. Though howsoever, if your lordship should never think of me more, yet in respect of your former favours, which cannot altogether be made void, I must remain, &c.

CCLXXXI. TO THE LORD ST. ALBAN.‡

My lord,

I have despatched the business your lordship recommended to me, which I send your lordship here enclosed, signed by his Majesty, and have likewise moved him for your coming to kiss his hand, which he is pleased you should do at Whitehall when he returneth next thither. In the mean time I rest

Your lordship's faithful friend and servant,
G. BUCKINGHAM.

Newmarket, 13 Nov. 1622.

I will give order to my secretary to wait upon Sir John Suckling about your other business.

Endorsed by the lord St. Alban's hand,

My lord of Bucks, touching my warrant and access.

* Love without ends hath no end, was a saying of Gondomar the Spanish ambassador; meaning thereby, that if it were begun not upon particular ends, it would last. *Bacon's Apophthegms*, 67. Vol. I. p. 315.

† Sir Tobie Matthew's Collection of Letters, p. 48, and Stephens's Second Collection, p. 167.

‡ Stephens's Second Collection, p. 174.

CCLXXXII. TO THE MARQUIS OF BUCKINGHAM.*

EXCELLENT LORD,

THOUGH I have troubled your lordship with many letters, oftener than I think I should, (save that affection keepeth no account,) yet upon the repair of Mr. Matthew, a gentleman so much your lordship's servant, and to me another myself, as your lordship best knoweth, you would not have thought me a man alive, except I had put a letter into his hand, and withal, by so faithful and approved a man, commended my fortunes afresh unto your lordship.

My lord, to speak my heart to your lordship, I never felt my misfortunes so much as now: not for that part which may concern myself, who profit (I thank God for it) both in patience, and in settling mine own courses; but when I look abroad and see the times so stirring, and so much dissimulation and falsehood, baseness and envy in the world, and so many idle clocks going in men's heads, then it grieveth me much, that I am not sometimes at your lordship's elbow, that I might give you some of the fruits of the careful advice, modest liberty, and true information of a friend that loveth your lordship as I do. For though your lordship's fortunes be above the thunder and storms of inferior regions; yet nevertheless, to hear the wind and not to feel it, will make one sleep the better.

My good lord, somewhat I have been, and much I have read; so that few things that concern states or greatness, are new cases unto me: and therefore I hope I may be no unprofitable servant to your lordship. I remember the king was wont to make a character of me, far above my worth, *that I was not made for small matters*; and your lordship would sometimes bring me from his Majesty that Latin sentence, *De minimis non curat lex:* and it hath so fallen out, that since my retiring, times have been fuller of great matters than before; wherein perhaps, if I had continued near his Majesty, he might have found more use of my service, if my gift lay that way: but that is but a vain imagination of mine. True it is, that as I do not aspire to use my talent in the king's great affairs; yet for that which may concern your lordship, and your fortune, no man living shall give you a better account of faith, industry, and affection, than I shall. I must conclude with that which gave me occasion of this letter, which is Mr. Matthew's employment to your lordship in those parts, wherein I am verily persuaded your lordship shall find him a wise and able gentleman, and one that will bend his knowledge of the world (which is great) to serve his Majesty, and the prince, and in especial your lordship. So I rest

Your lordship's most obliged and faithful servant,

FR. ST. ALBAN.

Gray's-Inn, this 18th April, 1623.

CCLXXXIII. TO THE DUKE OF BUCKINGHAM.†

EXCELLENT LORD,

How much I rejoice in your Grace's safe return, you will easily believe, knowing how well I love you, and how much I need you. There be many things in this journey both in the felicity and in the carriage thereof, that I do not a little admire, and wish your Grace may reap more and more fruits in continuance answerable to the beginnings. Myself have ridden at anchor all your Grace's absence, and my cables are now quite worn. I had from Sir Toby Matthew, out of Spain, a very comfortable message, that your Grace had said, I should be the first that you would remember in any great favour after your return: and now coming from court, he telleth me he had commission from your lordship to confirm it: for which I humbly kiss your hands.

My lord, do some good work upon me, that I may end my days in comfort, which nevertheless cannot be complete except you put me in some way to do your noble self service; for I must ever rest

Your Grace's most obliged and faithful servant,

FR. ST. ALBAN.

12 Oct. 1623.

I have written to his highness, and had presented my duty to his highness, to kiss his hands at York-house, but that my health is scarce yet confirmed.

CCLXXXIV. TO THE LORD ST. ALBAN.‡

MY LORD,

THE assurance of your love makes me easily believe your joy at my return; and if I may be so happy, as by the credit of my place to supply the decay of your cables, I shall account it one of the special fruits thereof. What Sir Toby Matthew hath delivered on my behalf, I will be ready to make good, and omit no opportunity that may serve for the endeavours of

Your lordship's faithful friend and servant,

G. BUCKINGHAM.

Royston, Octob. 14, 1623.

CCLXXXV. TO THE DUKE OF BUCKINGHAM.§

EXCELLENT LORD,

I SEND your Grace for a *parabien* a book of mine, written first and dedicated to his Majesty in English, and now translated into Latin and enriched. After his Majesty and his highness, your Grace is ever to have the third turn with me. Vouchsafe of your wonted favour to present also the king's book to his Majesty. The prince's I have sent to Mr. Endimion Porter. I hope your Grace, because you are wont to disable your Latin, will not send your book to

* Stephens's Second Collection, p. 175 † Ibid. p. 177. ‡ Ibid. p. 178. § Ibid. p. 179.

the Conde d'Olivares, because he was a deacon; for I understand by one, that your Grace may guess whom I mean, that the Conde is not rational, and I hold this book to be very rational. Your Grace will pardon me to be merry, however the world goeth with me. I ever rest

Your Grace's most faithful and obliged servant,
FR. ST. ALBAN.

Gray's-Inn, this 22d October, 1623.

I have added a begging postscript in the king's letter; for, as I writ before, my cables are worn out, my hope of tackling is by your lordship's means. For me and mine I pray command.

CCLXXXVI. TO THE LORD ST. ALBAN.*

My lord,

I give your lordship many thanks for the *parabien* you have sent me; which is so welcome unto me, both for the author's sake and for the worth of itself, that I cannot spare a work, of so much pains to your lordship and value to me, unto a man of so little reason and less art; who if his skill in languages be no greater than I found it in argument, may, perhaps, have as much need of an interpreter, for all his deaconry, as myself; and whatsoever mine ignorance is in the tongue, yet this much I understand in the book, that it is a noble monument of your love, which I will entail to my posterity, who I hope, will both reap the fruit of the work, and honour the memory of the author. The other book I delivered to his Majesty, who is tied here by the feet longer than he purposed to stay.

For the business your lordship wrote of in your other letters, I am sorry I can do you no service, having engaged myself to Sir William Beeher before my going into Spain, so that I cannot free myself, unless there were means to give him satisfaction. But I will ever continue

Your lordship's assured friend and faithful servant,
G. BUCKINGHAM.

Hinchenbrook, 27 Oct. 1623.

CCLXXXVII. TO THE LORD ST. ALBAN.†

My honourable lord,

I have delivered your lordship's letter and your book to his Majesty, who hath promised to read it over: I wish I could promise as much for that which you sent me, that my understanding of that language might make me capable of those good fruits, which, I assure myself by an implicit faith, proceed from your pen. But I will tell you in good English, with my thanks for your book, that I ever rest

Your lordship's faithful friend and servant,
G. BUCKINGHAM.

Hinchenbrook, 29 Oct. 1623.

* Stephens's Second Collection, p. 180. † Ibid. p. 181.

CCLXXXVIII. TO THE DUKE OF BUCKINGHAM.‡

Excellent lord,

I send Mr. Parker to have ready, according to the speech I had with your Grace, my two suits to his Majesty, the one for a full pardon, that I may die out of a cloud; the other for a translation of my honours after my decease. I hope his Majesty will have compassion on me, as he promised me he would. My heart telleth me that no man hath loved his Majesty and his service more entirely, and love is the law and the prophets. I ever rest

Your Grace's most obliged and faithful servant,
25 Nov. 1623. FR. ST. ALBAN.

CCLXXXIX. TO THE LORD ST. ALBAN.§

My honourable lord,

I have received your lordship's letter, and have been long thinking upon it, and the longer the less able to make answer unto it. Therefore if your lordship would be pleased to send any understanding man unto me, to whom I may in discourse open myself, I will by that means so discover my heart with all freedom, which were too long to do by letter, especially in this time of parliament business, that your lordship shall receive satisfaction. In the mean time I rest

Your lordship's faithful servant,
G. BUCKINGHAM.

Royston, 16 December.

CCXC. TO THE LORD ST. ALBAN.‖

My lord,

I have moved his Majesty in your suit, and find him very graciously inclined to grant it; but he desireth first to know from my lord treasurer his opinion and the value of it: to whom I have written to that purpose this enclosed letter, and would wish your lordship to speak with him yourself for his favour and farthenance therein; and for my part I will omit nothing that appertaineth to

Your lordship's faithful friend and servant,
G. BUCKINGHAM.

Newmarket, the 28th of Jan. 1623.

CCXCI. TO THE DUKE OF BUCKINGHAM.¶

Excellent lord,

I have received the warrant, not for land but for the money, which if it may be speedily served, is

‡ Ibid. p. 181. § Ibid. p. 184. ‖ Ibid. p. 185. ¶ Ibid.

sure the better; for this I humbly kiss your Grace's hands. But because the exchequer is thought to be somewhat barren, although I have good affiance of Mr. Chancellor, yet I hold it very essential, and therein I most humbly pray your Grace's favour, that you would be pleased by your letter to recommend to Mr. Chancellor the speedy issuing of the money by this warrant, as a business whereof your Grace hath an especial care; the rather for that I understand from him, there be some other warrants for money to private suitors at this time on foot. But your Grace may be pleased to remember this difference: that the other are mere gifts; this of mine is a bargain, with an advance only.

I most humbly pray your Grace likewise to present my most humble thanks to his Majesty. God ever guide you by the hand. I always rest

Your faithful and more and more obliged servant,

FR. ST. ALBAN.

Gray's-Inn, this 17th of November, 1624.

I most humbly thank your Grace for your Grace's favour to my honest deserving servant.

CCXCII. TO THE LORD ST. ALBAN.*

My noble load,

The hearty affection I have borne to your person and service, hath made me ever ambitious to be a messenger of good news to you, and an eschewer of ill; this hath been the true reason why I have been thus long in answering you, not any negligence in your discreet modest servant, you sent with your letter, nor his who now returns you this answer, ofttimes given me by your master and mine; who though by this may seem not to satisfy your desert and expectation, yet, take the word of a friend who will never fail you, hath a tender care of you, full of a fresh memory of your by-past service. His Majesty is but for the present, he says, able to yield unto the three years' advance, which if you please to accept, you are not hereafter the farther off from obtaining some better testimony of his favour worthier both of him and you, though it can never be answerable to what my heart wishes you, as

Your lordship's humble servant,

G. BUCKINGHAM.

CCXCIII. TO THE LORD † TREASURER MARLBOROUGH, EXPOSTULATING ABOUT HIS UNKINDNESS AND INJUSTICE.‡

My load,

I humbly entreat your lordship, and if I may use the word, advise you to make me a better answer. Your lordship is interested in honour, in the opinion of all them who hear how I am dealt with; if your lordship malice me for such a cause, surely it was one of the justest businesses that ever was in chancery. I will avouch it; and how deeply I was tempted therein, your lordship knows best. Your lordship may do well, in this great age of yours, to think of your grave, as I do of mine; and to beware of hardness of heart. And as for fair words, it is a wind, by which neither your lordship, nor any man else, can sail long. Howsoever, I am the man who will give all due respects and reverence to your great place, &c.

CCXCIV. TO THE KING.§

Most gracious and dread sovereign,

Before I make my petition to your Majesty, I make my prayers to God above *pectore ab imo*, that if I have held any thing so dear as your Majesty's service, nay, your heart's ease, and your honour's, I may be repulsed with a denial: but if that hath been the principal with me, that God, who knoweth my heart, would move your Majesty's royal heart to take compassion of me, and to grant my desire.

I prostrate myself at your Majesty's feet, I your ancient servant, now sixty-four years old in age, and three years five months old in misery. I desire not from your Majesty means, nor place, nor employment, but only, after so long a time of expiation, a complete and total remission of the sentence of the upper house, to the end that blot of ignominy may be removed from me, and from my memory with posterity; that I die not a condemned man, but may be to your Majesty, as I am to God, *nova creatura*. Your Majesty hath pardoned the like to Sir John Bennet, between whose case and mine, not being partial with myself, but speaking out of the general opinion, there was as much difference, I will not say as between black and white, but as between black and gray, or ash-coloured:‖ look therefore down, dear sovereign, upon me also in pity. I know your Majesty's heart is inscrutable for goodness; and my lord of Buckingham was wont to tell me you were the best natured man in the world; and it is God's property, that those he hath loved, he loveth to the end. Let your Majesty's grace, in this my desire, stream down upon me, and let it be out of the fountain and spring-head, and *ex mero motu*, that, living or dying, the print of the goodness of king James may be in my heart, and his praises in my mouth. This my most humble request granted, may make me live a year or two happily; and denied, will kill me quickly. But yet the last thing that will die in me, will be the heart and affection of

Your Majesty's most humble and true devoted servant,

FR. ST. ALBAN.

July 30, 1624.

* Stephens's Second Collection, p. 186.
† The lord Marlborough was made treasurer 22 Dec. 1624. 22 Jac.
‡ Sir Tobie Matthew's Collection of Letters, p. 54.
§ Stephens's First Collection, p. 197.
‖ Sir John Bennet, judge of the prerogative court, was, in the year 1621, accused, convicted, and censured in parliament for taking of bribes, and committing several misdemeanors relating to his office.

CCXCV. IN ANSWER TO THE FOREGOING, BY KING JAMES.*

TO OUR TRUSTY AND WELL BELOVED, THOMAS COVENTRY, OUR ATTORNEY-GENERAL.

TRUSTY AND WELL BELOVED, WE GREET YOU WELL:

WHEREAS our right trusty and right well-beloved cousin, the viscount of St. Alban, upon a sentence given in the upper house of parliament full three years since, and more, hath endured loss of his place, imprisonment, and confinement† also for a great time; which may suffice for the satisfaction of justice, and example to others: We being always graciously inclined to temper mercy with justice, and calling to mind his former good services, and how well and profitably he hath spent his time since his trouble, are pleased to remove from him that blot of ignominy which yet remaineth upon him, of incapacity and disablement; and to remit to him all penalties whatsoever inflicted by that sentence. Having therefore formerly pardoned his fine, and released his confinement; these are to will and require you to prepare, for our signature, a bill containing a pardon, in due form of law, of the whole sentence: for which this shall be your sufficient warrant.

CCXCVI. THE LORD VISCOUNT ST. ALBAN TO DR. WILLIAMS,‡ BISHOP OF LINCOLN, CONCERNING HIS SPEECHES, &c §

MY VERY GOOD LORD,

I AM much bound to your lordship for your honourable promise to Dr. Rawley: he chooseth rather to depend upon the same in general, than to pitch upon any particular; which modesty of choice I commend.

I find that the ancients, as Cicero, Demosthenes, Plinius Secundus, and others, have preserved both their orations and their epistles. In imitation of whom I have done the like to my own; which nevertheless I will not publish while I live; but I have been bold to bequeath them to your lordship, and Mr. Chancellor of the duchy. My speeches, perhaps, you will think fit to publish: the letters, many of them, touch too much upon late matters of state, to be published; yet I was willing they should not be lost. I have also by my will erected two lectures in perpetuity, in either university one, with an endowment of 200*l. per annum* apiece: they to be for natural philosophy, and the sciences thereupon depending; which foundations I have required my executors to order, by the advice and direction of your lordship, and my lord bishop of Coventry and Litchfield. These be my thoughts now. I rest

Your lordship's most affectionate to do you service.

* Cabala, 270. Edit. 1663.

† His sentence forbid his coming within the verge of the court. [In consequence of this letter, my lord Bacon was summoned to parliament in the first year of king Charles.]

CCXCVII. THE BISHOP'S ANSWER TO THE PRECEDING LETTER.‖

RIGHT HONOURABLE AND MY VERY NOBLE LORD,

MR. Doctor Rawley, by his modest choice, hath much obliged me to be careful of him, when God shall send any opportunity; and, if his Majesty shall remove me from this see, before any such occasion be offered, not to change my intentions with my bishopric.

It is true that those ancients, Cicero, Demosthenes, and Plinius Secundus, have preserved their orations, the heads and effects of them at the least, and their epistles; and I have ever been of opinion, that those two pieces are the principal pieces of our antiquities: those orations discovering the form of administering justice, and the letters the carriage of the affairs in those times. For our histories, or rather lives of men, borrow as much from the affections and phantasies of the writers, as from the truth itself, and are for the most of them built altogether upon unwritten relations and traditions. But letters written *e re nata*, and bearing a synchronism or equality of time *cum rebus gestis*, have no other fault, than that which was imputed unto Virgil, *nihil peccat, nisi quod nihil peccat*; they speak the truth too plainly, and cast too glaring a light for that age, wherein they were, or are written.

Your lordship doth most worthily therefore in preserving those two pieces, amongst the rest of those matchless monuments you shall leave behind you; considering, that as one age hath not bred your experience, so is it not fit it should be confined to one age, and not imparted to the times to come. For my part therein, I do embrace the honour with all thankfulness, and the trust imposed upon me with all religion and devotion. For these two lectures in natural philosophy, and the sciences woven and involved with the same; it is a great and a noble foundation both for the use, and the salary, and a foot that will teach the age to come, to guess in part at the greatness of that Herculean mind, which gave them their existence. Only your lordship may be advised for the seats of this foundation. The two universities are the two eyes of this land, and fittest to contemplate the lustre of this bounty: these two lectures are as the two apples of these eyes. An apple when it is single, is an ornament, when double a pearl or a blemish in the eye. Your lordship may therefore inform yourself if one Sidley of Kent hath not already founded in Oxford a lecture of this nature and condition. But if Oxford in this kind be an Argus, I am sure poor Cambridge is a right Polyphemus; it hath but one eye, and that not so steadily or artificially placed; but *bonum est facile sui diffusivum*: your lordship being so full of goodness will quickly find an object to pour it on. That which made me say thus much, I will say in verse, that your lordship may remember it better;

‡ This title seems to imply that the date of this letter was after the bishop was removed from being lord keeper.

§ Stephens's Second Collection, p. 189.

‖ Ibid. p. 190.

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Sola ruinosis stat Cantabrigia pannis,
Atque inopi lingua disertas invocat artes.

I will conclude with this vow: 'Deus, qui animum istum tibi, animo isti tempus quam longissimum tribuat.' It is the most affectionate prayer of

Your lordship's most humble servant,

JO. LINCOLN.

Buckdon, the last of December, 1625.

CCXCVIII. TO THE QUEEN* OF BOHEMIA.†

IT MAY PLEASE YOUR MAJESTY,

I HAVE received your Majesty's gracious letter from Mr. Secretary Morton, who is now a saint in heaven. It was at a time when the great desolation of the plague was in the city, and when myself was ill of a dangerous and tedious sickness. The first time that I found any degree of health, nothing came sooner to my mind, than to acknowledge your Majesty's great favour, by my most humble thanks: and because I see your Majesty taketh delight in my writings, and to say the truth, they are the best fruits I now yield, I presume to send your Majesty a little discourse of mine, touching a war with Spain, which I writ about two years since; which the king your brother liked well. It is written without bitterness or invective, as king's affairs ought to be carried; but if I be not deceived, it hath edge enough. I have yet some spirits left, and remnant of experience, which I consecrate to the king's service and your Majesty's; for whom I pour out my daily prayers to God, that he would give your Majesty a fortune worthy your rare virtues; which, some good spirit tells me, will be in the end. I do in all reverence kiss your Majesty's hands, ever resting

Your Majesty's most humble and devoted servant,

FR. ST. ALBAN.

CCXCIX. A LETTER OF THE LORD BACON'S, IN FRENCH, TO THE MARQUIS FIAT, RELATING TO HIS ESSAYS.‡

MONSIEUR L'AMBASSADEUR MON FILS,

VOYANT que vostre excellence faict & traite mariages, non seulement entre les princes d'Angleterre & de France, mais aussi entre les langues (puis que faictes traduire mon livre de *l'Advancement des Sciences* en Francois) j'ai bien voulu vous envoyer mon livre dernièrement imprimé, que j'avois pourveu pour vous, mais j'estois en doubte de le vous envoyer, pour ce qu'il estoit escrit en Anglois. Mais à cest heure pour la raison susdicte je le vous envoye. C'est un recompilement de mes *Essayes morales & civiles*; mais tellement enlargies & enrichies, tant de nombre que de poids, que c'est de fait un œuvre nouveau. Je vous baise les mains, & reste

Vostre très affectioné ami, & très humble serviteur.

CCC. TO THE EARL OF ARUNDEL AND SURREY: JUST BEFORE HIS DEATH, BEING THE LAST LETTER HE EVER WROTE.§

MY VERY GOOD LORD,

I WAS likely to have had the fortune of Caius Plinius the elder, who lost his life by trying an experiment about the burning of the mount Vesuvius: for I was also desirous to try an experiment or two, touching the conservation and induration of bodies. As for the experiment itself, it succeeded excellently well; but in the journey, between London and Highgate, I was taken with such a fit of casting, as I knew not whether it were the stone, or some surfeit, or cold, or indeed a touch of them all three. But when I came to your lordship's house, I was not able to go back, and therefore was forced to take up my lodging here, where your house-keeper is very careful and diligent about me; which I assure myself your lordship will not only pardon towards him, but think the better of him for it. For indeed your lordship's house was happy to me; and I kiss your noble hands for the welcome which I am sure you give me to it, &c.

I know how unfit it is for me to write to your lordship with any other hand than my own; but by my troth my fingers are so disjointed with this fit of sickness, that I cannot steadily hold a pen.

* The princess Elizabeth, eldest daughter of king James, was married to Frederick V. elector palatine, who by accepting the crown of Bohemia was soon deprived both of that and his ancient principality. Under all her afflictions she had the happiness of being mother of many fine children, and at length of seeing her son restored to the Palatinate, and her nephew to his kingdoms. To her, who had been so much injured by Spain, my lord St. Alban presents his discourse touching a war with Spain, in acknowledgment of the favour of her Majesty's letter, sent by her secretary Sir Albertus Morton; in which quality he had served his uncle Sir Henry Wotton, in some of his embassies: and as he was tenderly beloved by him in his life, and much lamented in his death; so Sir Harry professed no less admiration of this queen, and the splendour of her virtues under the darkness of her fortunes. *Stephens.*

† Stephens's Second Collection, p. 188. ‡ Ibid. p. 187.

§ Sir Tobie Matthew's Collection, p. 57.

LETTERS, SPEECHES, CHARGES, ADVICES, &c.

OF

FRANCIS BACON, LORD VISCOUNT ST. ALBAN,

LORD CHANCELLOR OF ENGLAND;

FIRST PUBLISHED IN THE YEAR 1763,

BY THOMAS BIRCH, D. D.

CHAPLAIN TO HER ROYAL HIGHNESS THE PRINCESS AMELIA, AND SECRETARY TO THE ROYAL SOCIETY.

TO THE HONOURABLE CHARLES YORKE,

ATTORNEY-GENERAL TO HIS MAJESTY.

SIR,

THE gratitude, which I owe you for the honour and other important advantages of your friendship, hath often made me wish for an opportunity of making you some return equal, in any degree, to your merit, and my own obligations. It was, therefore, a very agreeable incident to me, when by means of your noble brother, the Lord Viscount Royston, always attentive to enlarge the fund of history, as well as to encourage and reward every attempt in favour of literature in general, there was put into my hands a volume of original papers of the great Lord Bacon. This volume was, at his lordship's request, readily intrusted with me by his Grace the lord archbishop of Canterbury, whose zeal for the advancement of useful learning of all kinds bears a just proportion to that which he has shown in every station of the church filled by him, for the support of religion, and for what is the most perfect system of its principles, laws, and sanctions—Christianity.

From the long acquaintance with which I have been favoured by you, and the frequent conversations which we have had upon subjects foreign to the profession which you so much adorn, I well knew your high veneration for the writings of Bacon, and your thorough knowledge of the most abstruse of them. Having, therefore, with an application little less than that of decyphering, transcribed from the first draughts, and digested into order, a collection of his letters, little inferior in number, and much superior in contents, to what the world hath hitherto seen, intermixed with other papers of his of an important nature, I could not doubt, but that the publishing of them would be no less acceptable to you, than, I persuade myself, they will be to the public. For it is scarce to be imagined, but that the bringing to light, from obscurity and oblivion, the remains of so eminent a person, will be thought an acquisition not inferior to the discovery (if the ruins of Herculaneum should afford such a treasure) of a new set of the epistles of Cicero, whom our immortal countryman most remarkably resembled as an orator, a philosopher, a writer, a lawyer, and a statesman. The communication of them to the public appearing to me a duty to it and the memory of the author, to whom could I, separately from the consideration of all personal connexions and inducements, so justly present them, as to him, whom every circumstance of propriety, and conformity of character, in the most valuable part of it, pointed out to me for that purpose? Similarity of genius; the same extent of knowledge in the laws of our own and other countries, enriched and adorned with all the stores of ancient and modern learning; the same eloquence at the bar and in the senate; an equal force of writing, shown in a single work indeed, and composed at a very early age, but decisive of a grand question of law and sanction of government, the grounds of which had never before been stated with due precision; and the most successful discharge of the same offices of king's counsel and solicitor and attorney-general.

These reasons, Sir, give your name an unquestionable right to be prefixed to these posthumous pieces. And I hope, while I am performing this act of justice, I may be excused the ambition of preserving my own name, by uniting it with those of BACON and YORKE.

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Your delicacy here restrains me from indulging myself farther in the language which truth and esteem would dictate. But I must be allowed to add a wish, in which every good man and lover of his country will join with me, that as there now remains but one step for you to complete that course of public service and glory, in which you have so closely followed your illustrious father, he, happy in the most important circumstance of human life, the characters and fortunes of his children,

—longo ordine Nati,
Clari omnes patria pariter Virtute suaque,

may live to see you possessed of that high station, which himself filled for almost twenty years, with a reputation superior to all the efforts of envy or party. Nor is it less to his honour, (and may it be yours at a very distant period,) that, though he thought proper to retire from that station in the full vigour of his abilities, he still continues to exert them in a more private situation, for the general benefit of his country; enjoying in it the noblest reward of his services, an unequalled authority, founded on the acknowledged concurrence of the greatest capacity, experience, and integrity.

I am, SIR,

Your most obliged and most devoted humble servant,

London, June 1, 1762. THOMAS BIRCH.

PREFACE.

As the reader will undoubtedly have some curiosity about the history of the transmission of these papers, now presented to him at the distance of an hundred and forty years from the date of most of them, though the hand of the incomparable writer is too conspicuous in them to admit of any suspicion of their genuineness; it will be proper here to give him some information upon that subject. Dr. Thomas Tenison is known to have been the editor of the *Baconiana*, published at London, 1679, though he added only the initial letters of his name *to the account of all the lord Bacon's works*,* subjoined to that collection. He had been an intimate friend of, and fellow of the same college † with Mr. William Rawley, only son of Dr. William Rawley, chaplain to the lord chancellor Bacon, and employed by his lordship, as publisher of most of his works. Dr. Rawley dying in the 79th year of his age, June the 18th, 1667, near a year after his son; ‡ his executor, Mr. John Rawley, put into the hands of his friend Dr. Tenison these papers of lord Bacon, which composed the *Baconiana;* and probably, at the same time, presented to him all the rest of his lordship's manuscripts, which Dr. Rawley had been possessed of, but did not think proper to make public. The reasons of his reserve appear from Dr. Tenison's *account* § cited above, to have been, "that he judged some papers touching *matters of state* to tread too near to the heels of truth, and to the times of the persons concerned: and that he thought his lordship's *letters* concerning his fall might be injurious to his honour, and cause the old wounds of it to bleed anew." But this is a delicacy, which though suitable to the age in which Dr. Rawley lived, and to the relation under which he had stood to his noble patron, ought to have no force in other times and circumstances, nor ever to be too much indulged to the prejudice of the rights of historical truth.

Dr. Tenison being, soon after the publication of the *Baconiana*, removed from the more private station of a country living to the vicarage of St. Martin's in the Fields, Westminster, and, after the revolution, advanced to the bishopric of Lincoln, and at last to the archbishopric of Canterbury, had scarce leisure, if he had been inclined, to select more of the papers of his admired Bacon. These therefore with the rest of his manuscripts, not already deposited in the library at Lambeth, were left by him in his last will, dated the 11th of April, 1715, to his chaplain, Dr. Edmund Gibson, then rector of Lambeth, and afterwards successively bishop of Lincoln and London, and to Mr. (afterwards Dr.) Benjamin Ibbot, who had succeeded Dr. Gibson as library-keeper to his Grace. Dr. Ibbot dying ‖ many years before bishop Gibson, the whole collection of archbishop Tenison's papers came under the disposition of that bishop, who directed his two executors, the late Dr. Bettesworth, dean of the Arches, and his eldest son, George Gibson, Esq. to deposite them, with the addition of many others of his own collecting, in the manuscript library at Lambeth: and accordingly after his lordship's death, which happened on the 6th of Sept. 1748, all these manuscripts were delivered by his said executors to archbishop Herring, on the 21st of October of that year, and placed in the library on the 23d of February following. But as they lay undigested in bundles, and in that condition were neither convenient for use, nor secure from damage, his Grace the present archbishop directed them to be methodized and bound up in volumes with proper indexes, which was done by his

* This *account* is dated Nov. the 30th, 1678.
‡ Who was buried the 3d of July, 1666.
† Benet, in the university of Cambridge.
§ Page 81.
‖ The 11th of April, 1725.

learned librarian, Andrew Coltee Ducarel, LL. D. Fellow of the Royal and Antiquarian Societies, to whose knowledge, industry, and love of history and antiquities, the valuable library of manuscripts of the archiepiscopal see of Canterbury is highly indebted for the order in which it is now arranged; and by whose obliging and communicating temper it is rendered generally useful. Bishop Gibson's collection, including what is the chief part of it, that of archbishop Tenison, fills fourteen large volumes in folio. The eighth of these consists merely of lord Bacon's papers.

Of them principally, the work which I now offer the public is formed; nor has any paper been admitted into it that had been published before, except two of lord Bacon's letters, which having been disguised and mutilated in all former impressions, were thought proper to be reprinted here, together with two other letters of his lordship; one on the remarkable case of Peacham, the other accompanying his present to king James I. of his *Novum Organum*. These letters I was unwilling to omit, because the collection, in which they have lately appeared, entitled by the very learned and ingenious editor, Sir David Dalrymple, Bat. *Memorials and Letters relating to the History of Britain in the reign of James the First, published from the Originals*, at Glasgow, 1762, in 8vo, is likely to be much less known in England, from the smallness of the number of printed copies, than it deserves.

The general rule, which I have prescribed myself, of publishing only what is new, restrained me from adding those letters, written in the earlier part of Mr. Francis Bacon's life, which I had before published from the originals, found among the papers of his brother Anthony, in the *Memoirs of the Reign of Queen Elizabeth, from the year* 1581 *to her death*.

The example of the greatest men, in preserving in their editions of the classics the smallest remains of their writings, will be a full justification of my industry in collecting and inserting even the fragments of a writer equal to the most valuable of the ancients. Nor will the candid and intelligent object to the least considerable of the duke of Buckingham's letters, since they acquire an importance from the rank and character of the writer, as well as from their carrying on the series of his correspondence, acquainting us with new facts, or ascertaining old ones with additional evidence and circumstances, and showing the extent of that authority and influence, which his situation, as a favourite, gave him in all parts of the government, even as high as the seat of justice itself.

POSTSCRIPT, RELATING TO THIS SECOND EDITION.

Since the former edition, there came into my hands, among the collections in print and manuscript, relating to lord Bacon and his works, made by the late John Locker, Esq. two letters of Dr. Tenison, afterwards archbishop of Canterbury, which will enable me to give the public full satisfaction, in what manner that learned divine became possessed of the *Letters, &c.* of the noble author published by me.

One of these letters, the original, written to Mr. Richard Chiswell, the bookseller, for whom the *Baconiana* had been printed, is as follows:

Decemb. 16, 1682.

" Sir,

" I have now looked over all the books and papers in the box. In the books there are copies of Essays, Maxims of Law, &c. all printed already: but they contain some things fit to be printed; and they and the Letters will make a handsome folio, which I doubt not but will turn to account. For the Letters, there are divers of Sir Thomas Meautys, &c. worth nothing: but there are more than forty letters to the duke of Buckingham, and some of the duke of Buckingham to him.

" There are eight or ten to king James. There are three or four to Gondomar, and Gondomar's answer to one of them.

" There are two or three letters to bishop Williams, and two from him.

" There is lord Bacon's letter to Casaubon in Latin.

" There is one essay never printed.

" All which will be well accepted.

" After the holy-days I will methodize all, and put all letters of the same date together, (for as yet they are in confusion,) and then we will take farther resolutions about them. I will get an afternoon (if God permit) to see the remaining papers in Bartholomew-Close. The Greek MS. will not prove much worth. The latter and greater part is only a piece of Tzetzes.

" It is necessary that you procure for me Tobie Matthew's printed letters, for here are also ten of his to lord Bacon; and I know not which they are yet printed. Also I shall want a copy of the Essays printed in 12mo, 1663, printed for Thomas Palmer, at the Crown in Westminster-Hall, with a preface by one Griffith. I have the book; and the preface is mentioned in the title page, but is wanting.

" I am your assured friend,

" T. TENISON."

" If more sheets of Dr. Spencer's are done, pray send them."

For Mr. Chiswell, at the Rose and Crown, in St. Paul's Church-Yard, London.

The other letter of which I have a copy taken by the late Richard Rawlinson, L.L. D. from bishop Tanner's manuscripts, in Christ-Church, Oxford, Vol. XXXV. p. 152, was addressed to archbishop Sancroft in these terms:

MAY IT PLEASE YOUR GRACE,

"I HAVE received your Grace's letter touching my course of preaching in Lent, which I shall be ready, God assisting me, to do my duty at that time according to my poor talent.

"I did forget on Tuesday to acquaint your Grace, that I had, by a strange providence, lately found out in this town a great many original papers of the lord Bacon. When I have looked over them and sorted them, I will be bold to present your Grace with a catalogue of them. They came to me from the executor of Sir Thomas Meautys, who was his lordship's executor. Amongst his lordship's papers are letters from king James, the queen of Bohemia, count Gondomar, and others. Amongst his lordship's own letters there is one in Latin to Isaac Casaubon.

"One just now come from my lord chancellor's * assured me he was not indeed dead, but just dying.

"I am your Grace's most obliged servant,

"Decemb. 18, 1682." "T. TENISON."

The reason of the rule, which I prescribed to myself in the former edition, of publishing only what was new, not subsisting in the present, which forms a part of a complete collection of the author's writings, I have inserted in it such letters from and to him, as I had published in 1754 in the *Memoirs of the Reign of Queen Elizabeth.*

London, January 1, 1765.

LETTERS, &c. OF LORD CHANCELLOR BACON.

MR. FRANCIS BACON TO MR. ROBERT CECIL.†

SIR,

I AM very glad, that the good affection and friendship, which conversation and familiarity did knit between us, is not by absence and intermission of society discontinued; which assureth me, it had a farther root than ordinary acquaintance. The signification whereof, as it is very welcome to me, so it maketh me wish, that, if you have accomplished yourself, as well in the points of virtue and experience, which you sought by your travel, as you have won the perfection of the Italian tongue, I might have the contentment to see you again in England, that we may renew the fruit of our mutual good will; which, I may truly affirm, is, on my part, much increased towards you, both by your own demonstration of kind remembrance, and because I discern the like affection in your honourable and nearest friends.

Our news are all but in seed; for our navy is set forth with happy winds, in token of happy adventures, so as we do but expect and pray, as the husbandman when his corn is in the ground.

Thus commending me to your love, I commend you to God's preservation.

* Heneage Finch, earl of Nottingham, who died on the day of the date of this letter, aged 61 years.

† From the original draught in the library of Queen's college, Oxford. *Arch. D.* 2. This letter seems to be of a very early date, and to have been written to Mr. Rob. Cecil, while he was upon his travels.

MR. FRANCIS BACON TO THE EARL OF ESSEX.‡

MY LORD,

I DID almost conjecture by your silence and countenance a distaste in the course I imparted to your lordship touching mine own fortune; the care whereof in your lordship as it is no news to me, so nevertheless the main effects and demonstrations past are so far from dulling in me the sense of any new, as contrariwise every new refresheth the memory of many past. And for the free and loving advice your lordship hath given me, I cannot correspond to the same with greater duty, than by assuring your lordship, that I will not dispose of myself without your allowance, not only because it is the best wisdom in any man in his own matters, to rest in the wisdom of a friend, (for who can by often looking in the glass discern and judge so well of his own favour, as another, with whom he converseth?) but also because my affection to your lordship hath made mine own contentment inseparable from your satisfaction. But, notwithstanding, I know it will be pleasing to your good lordship, that I use my liberty of replying; and I do almost assure myself, that your lordship will rest persuaded by the answer of those reasons, which your lordship vouch-

‡ Among the papers of Antony Bacon, Esq. vol. III. fol. 74, in the Lambeth library.

safed to open. They were two, the one, that I should include * * *

1593, April.

The rest of the Letter is wanting.

MR. FRANCIS BACON TO SIR JOHN PUCKERING, LORD KEEPER OF THE GREAT SEAL.*

My lord,

It is a great grief unto me, joined with marvel, that her Majesty should retain a hard conceit of my speeches in parliament.† It might please her sacred Majesty to think what my end should be in those speeches, if it were not duty, and duty alone. I am not so simple, but I know the common beaten way to please. And whereas popularity hath been objected, I muse what care I should take to please many, that take a course of life to deal with few. On the other side, her Majesty's grace and particular favour towards me hath been such, as I esteem no worldly thing above the comfort to enjoy it, except it be the conscience to deserve it. But if the not seconding of some particular person's opinion shall be presumption, and to differ upon the manner shall be to impeach the end; it shall teach my devotion not to exceed wishes, and those in silence. Yet notwithstanding, to speak vainly as in grief, it may be her Majesty hath discouraged as good a heart, as ever looked toward her service, and as void of self-love. And so in more grief than I can well express, and much more than I can well dissemble, I leave your lordship, being as ever,

Your lordship's entirely devoted, &c.

MR. FRANCIS BACON TO ALDERMAN JOHN SPENCER.‡

Mr. alderman Spencer,§

Though I be ready to yield to any thing for my brother's sake, so yet he will not, I know, expect, no nor permit me, that I should do myself wrong. For me, that touch no money, to have a statute hurrying upon my estate of that greatness, were a thing utterly unreasonable, and not to be moved, specially, since your assurance is as good without. There is much land bought and sold in England, and more entailed than fee-simple. But for a remainder man to join in seal, I think was never put in practice. For a time, till your assurance pass, so it pass with convenient speed, because of the uncertainty of life, I am content to enter into one; looking, nevertheless, for some present of gratification for my very joining in conveyance, and much more having yielded to this. For any warranty or charter, I had had neither law nor wit, if I should have meant it; and the reforming of the covenant and the deed of feoffment, doth sufficiently witness my intention. Thus bid I heartily farewell.

Your very loving friend,

Twickenham Park, this 26th of August, 1593. FR. BACON.

THE EARL OF ESSEX TO MR. FRANCIS BACON.‖

Mr. Bacon,

Your letter met me here yesterday. When I came, I found the queen so wayward, as I thought it no fit time to deal with her in any sort, especially since her choler grew towards myself, which I have well satisfied this day, and will take the first opportunity I can to move your suit. And if you come hither, I pray you let me know still where you are. And so being full of business, I must end, wishing you what you wish to yourself.

Your assured friend,

ESSEX.

LORD TREASURER BURGHLEY TO MR. FRANCIS BACON.¶

Nephew,

I have no leisure to write much; but for answer, I have attempted to place you: but her Majesty hath required the lord keeper** to give to her the names of divers lawyers to be preferred, wherewith he made me acquainted, and I did name you as a meet man, whom his lordship allowed in way of friendship, for your father's sake: but he made scruple to equal you with certain, whom he named, as Brograve†† and Branthwayt, whom he specially commendeth. But I will continue the remembrance of you to her Majesty, and implore my lord of Essex's help.

Your loving uncle,

N. BURGHLEY.

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* Harl. MSS. Vol. 286. No. 129. fol. 232.

† On Wednesday the 7th of March, 1592-3, upon the three subsidies demanded of the house of commons; to which he assented, but not to the payment of them under six years, urging the necessities of the people, the danger of raising public discontentment, and the setting of an evil precedent against themselves and their posterity. See Sir Simonds D'Ewes's Journals, p. 493. He sat in that parliament, which met November 19, 1592, and was dissolved 10 April, 1593, as one of the knights of the shire for Middlesex.

‡ Among the Papers of Antony Bacon, Esq. vol. iii. fol. 186, in the Lambeth library.

§ Sir John Spencer, lord mayor of London in 1591. His vast fortune came to his only daughter, Elizabeth, married to William lord Compton, created earl of Northampton, in August 1618.

‖ 1593, Sept. Among the papers of Antony Bacon, Esq. vol. iii. fol. 197, in the Lambeth library.

¶ Among the papers of Antony Bacon, Esq. vol. iii. fol. 197, in the Lambeth library.

** Puckering.

†† John Brograve, attorney of the duchy of Lancaster, and afterwards knighted. He is mentioned by Mr. Francis Bacon, in his letter to the lord treasurer, of 7th of June, 1595, from Gray's Inn, as having discharged his post of attorney of the duchy with *great sufficiency*. There is extant of his, in print, a *reading upon the statute of 27 Henry VIII. concerning Jointures.*

SIR ROBERT CECIL TO MR. FRANCIS BACON.*

COUSIN,

ASSURE yourself, that the solicitor's † coming gave no cause of speech; for it was concerning a book to be drawn concerning the bargain of wines. If there had been, you should have known, or when there shall. To satisfy your request of making my lord know how recommended your desires are to me, I have spoken with his lordship, who answereth, he hath done and will do his best. I think your absence longer than for my good aunt's comfort will do you no good: for, as I ever told you, it is not likely to find the queen apt to give an office, when the scruple is not removed of her forbearance to speak with you. This being not yet perfected may stop good, when the hour comes of conclusion, though it be but a trifle, and questionless would be straight despatched, if it were luckily handled. But herein do I, out of my desire to satisfy you, use this my opinion, leaving you to your own better knowledge what hath been done for you, or in what terms that matter standeth. And thus, desirous to be recommended to my good aunt, to whom my wife heartily commends her, I leave you to the protection of Almighty God. From the court at Windsor, this 27th of September, 1593.

Your loving cousin and friend,

ROBERT CECIL.

I have heard in these causes, 'Facies hominis est tanquam leonis.'

MR. FRANCIS BACON TO THE QUEEN.‡

MADAM,

REMEMBERING, that your Majesty had been gracious to me both in countenancing me, and conferring upon me the reversion of a good place, and perceiving that your Majesty had taken some displeasure towards me, both these were arguments to move me to offer unto your Majesty my service, to the end to have means to deserve your favour, and to repair my error. Upon this ground I affected myself to no great matter, but only a place of my profession, such as I do see divers younger in proceeding to myself, and men of no great note, do without blame aspire unto. But if any of my friends do press this matter, I do assure your Majesty my spirit is not with them.

It sufficeth me, that I have let your Majesty know, that I am ready to do that for the service, which I never would do for mine own gain. And if your Majesty like others better, I shall, with the Lacedæmonian, be glad, that there is such choice of abler men than myself. Your Majesty's favour indeed, and access to your royal person, I did ever, encouraged by your own speeches, seek and desire; and I would be very glad to be reintegrate in that. But I will not wrong mine own good mind so much, as to stand upon that now, when your Majesty may conceive, I do it but to make my profit of it. But my mind turneth upon other wheels than those of profit. The conclusion shall be, that I wish your Majesty served answerable to yourself. 'Principis est virtus maxima nosse suos.' Thus I most humbly crave pardon of my boldness and plainness. God preserve your Majesty.

MR. FRANCIS BACON TO ROBERT KEMP, OF GRAY'S-INN, ESQ.§

GOOD ROBIN,

THERE is no news you can write to me, which I take more pleasure to hear, than of your health, and of your loving remembrance of me; the former whereof though you mention not in your letter, yet I straight presumed well of it, because your mention was so fresh to make such a flourish. And it was afterwards accordingly confirmed by your man Roger, who made me a particular relation of the former negotiation between your ague and you. Of the latter, though you profess largely, yet I make more doubt, because your coming is turned into a sending; which when I thought would have been repaired by some promise or intention of yourself, your man Roger entered into a very subtle distinction to this purpose, that you could not come, except you heard I was attorney; but I ascribe that to your man's invention, who had his reward in laughing; for I hope you are not so stately, but that I shall be one to you *stylo vetere* or *stylo novo*. For my fortune (to speak court) it is very slow, if any thing can be slow to him that is secure of the event. In short, nothing is done in it; but I propose to remain here at Twickenham till Michaelmas term, then to St. Alban's, and after the term to court. Advise you, whether you will play the honest man or no. In the mean time I think long to see you, and pray to be remembered to your father and mother.

Yours in loving affection,

FR. BACON.

From Twickenham-Park,
this 4th of Nov. 1593.

MR. FRANCIS BACON TO THE EARL OF ESSEX.‖

MY LORD,

I THOUGHT it not amiss to inform your lordship of that which I gather partly by conjecture, and partly by advertisement of the late recovered man, that is

* Among the Papers of Antony Bacon, Esq. vol. iii. fol. 197, *verso*, in the Lambeth library.

† Mr. Edward Coke.

‡ 1593. Among the Papers of Antony Bacon, Esq. vol. iii. fol. 315, in the Lambeth library.

§ 1593, Nov. 4. Among the Papers of Antony Bacon, Esq. vol. iii. fol. 281, in the Lambeth library.

‖ 1593, Nov. 10. Among the Papers of Antony Bacon, Esq. vol. iii. fol. 283, in the Lambeth library.

so much at your devotion, of whom I have some cause to think, that he * worketh for the *Huddler* † underhand. And though it may seem strange, considering how much it importeth him to join straight with your lordship, in regard both of his enemies and of his ends; yet I do the less rest secure upon the conceit, because he is a man likely to trust so much to his art and finesse, (as he, that is an excellent wherryman, who, you know, looketh towards the bridge, when he pulleth towards Westminster,) that he will hope to serve his turn, and yet to preserve your lordship's good opinion. This I write to the end, that if your lordship do see nothing to the contrary, you may assure him more or trust him less; and chiefly, that your lordship be pleased to sound again, whether they have not, amongst them, drawn out the nail, which your lordship had driven in for the negative of the *Huddler;* which if they have, it will be necessary for your lordship to iterate more forcibly your former reasons, whereof there is such *copia*, as I think you may use all the places of logic against his placing.

Thus, with my humble thanks for your lordship's honourable usage of Mr. Standen, I wish you all honour.

Your lordship's in most faithful duty,

FR. BACON.

I pray, Sir, let not my jargon privilege my letter from burning; because it is not such, but the light showeth through.

THE EARL OF ESSEX TO MR. FRANCIS BACON.‡

Sir,

I have received your letter, and since I have had opportunity to deal freely with the queen. I have dealt confidently with her as a matter, wherein I did more labour to overcome her delays, than that I did fear her denial. I told her how much you were thrown down with the correction she had already given you, that she might in that point hold herself already satisfied. And because I found, that Tanfield § had been most propounded to her, I did most disable him. I find the queen very reserved, staying herself upon giving any kind of hope, yet not passionate against you, till I grew passionate for you. Then she said, that none thought you fit for the place but my lord treasurer and myself. Marry, the others must some of them say before us for fear or for flattery. I told her the most and wisest of her council had delivered their opinions, and preferred you before all men for that place. And if it would please her Majesty to think, that whatsoever they said contrary to their own words when they spake without witness, might be as factiously spoken, as the other way flatteringly, she would not be deceived. Yet if they had been never for you, but contrarily against you, I thought my credit, joined with the approbation and mediation of her greatest counsellors, might prevail in a greater matter than this; and urged her, that though she could not signify her mind to others, I might have a secret promise, wherein I should receive great comfort, as in the contrary great unkindness. She said she was neither persuaded nor would hear of it till Easter, when she might advise with her council, who were now all absent; and therefore in passion bid me go to bed, if I would talk of nothing else. Wherefore in passion I went away, saying, while I was with her, I could not but solicit for the cause and the man I so much affected; and therefore I would retire myself till I might be more graciously heard; and so we parted. To-morrow I will go hence of purpose, and on Thursday I will write an expostulating letter to her. That night or upon Friday morning I will be here again, and follow on the same course, stirring a discontentment in her, &c. And so wish you all happiness, and rest

Your most assured friend,

ESSEX.

Indorsed,
March 28, 1594.

THE EARL OF ESSEX TO MR. FRANCIS BACON.

Sir,

I have now spoken with the queen, and I see no stay from obtaining a full resolution of that we desire. But the passion she is in by reason of the tales that have been told her against Nicholas Clifford, with whom she is in such rage, for a matter, which I think you have heard of, doth put her infinitely out of quiet; and her passionate humour is nourished by some foolish women. Else I find nothing to distaste us, for she doth not contradict confidently; which they, that know the minds of women, say is a sign of yielding. I will to-morrow take more time to deal with her, and will sweeten her with all the art I have to make *benevolum auditorem*. I have already spoken with Mr. Vice-chamberlain; ¶ and will to-morrow speak with the rest. Of Mr. Vice-chamberlain you may assure yourself; for so much he hath faithfully promised me. The exceptions against the competitors I will use to-morrow; for then I do resolve to have a full and large discourse, having prepared the queen to-night to assign me a time under colour of some such business, as I have pretended. In the mean time I must tell you, that I do not respect either my absence, or my showing a discontentment in going away, for I was received at my return, and I think I shall not be the worse. And for that I am oppressed with multitude of letters that are come, of which I must

* Probably Lord Keeper Puckering.
† Mr. Edward Coke.
‡ Among the Papers of Antony Bacon, Esq. vol. iv. fol. 90, in the Lambeth library.
§ Probably Laurence Tanfield, made lord chief baron of the Exchequer in June 1607.
‖ Among the Papers of Antony Bacon, Esq. vol. iv. fol. 89, in the Lambeth library.
¶ Sir Thomas Heneage.

give the queen some account to-morrow morning, I therefore desire to be excused for writing no more to-night: to-morrow you shall hear from me again. I wish you what you wish yourself in this and all things else, and rest

Your affectionate friend,

ESSEX.

This Friday at night.

Indorsed, March 29, 1594.

MR. FRANCIS BACON TO THE EARL OF ESSEX.*

My lord,

I thank your lordship very much for your kind and comfortable letter, which I hope will be followed at hand with another of more assurance. And I must confess this very delay hath gone so near me, as it hath almost overthrown my health; for when I revolved the good memory of my father, the near degree of alliance I stand in to my lord treasurer, your lordship's so signalled and declared favour, the honourable testimony of so many counsellors, the commendations unlaboured, and in sort offered by my lords the judges and the master of the rolls elect;† that I was voiced with great expectation, and, though I say it myself, with the wishes of most men, to the higher place;‡ that I am a man, that the queen hath already done for; and that princes, especially her Majesty, love to make an end where they begin; and then add hereunto the obscureness and many exceptions to my competitors: when, I say, I revolve all this, I cannot but conclude with myself, that no man ever read a more exquisite disgrace; and therefore truly, my lord, I was determined, if her Majesty reject me, this to do. My nature can take no evil ply; but I will, by God's assistance, with this disgrace of my fortune, and yet with that comfort of the good opinion of so many honourable and worthy persons, retire myself with a couple of men to Cambridge, and there spend my life in my studies and contemplations without looking back. I humbly pray your lordship to pardon me for troubling you with my melancholy. For the matter itself, I commend it to your love; only I pray you communicate afresh this day with my lord treasurer and Sir Robert Cecil; and if you esteem my fortune, remember the point of precedency. The objections to my competitors your lordship knoweth partly. I pray spare them not, not over the queen, but to the great ones, to show your confidence, and to work their distrust. Thus longing exceedingly to exchange troubling your lordship with serving you, I rest

Your lordship's, in most entire and faithful service,

FRANCIS BACON.

I humbly pray your lordship I may hear from you some time this day.

30th March, 1594.

* Among the Papers of Antony Bacon, Esq. vol. iii. fol. 62, Lambeth library.

† Sir Thomas Egerton.

‡ That of attorney-general.

MR. FRANCIS BACON TO SIR ROBERT CECIL.§

My most honourable good cousin,

Your honour in your wisdom doth well perceive, that my access at this time is grown desperate in regard of the hard terms, that as well the earl of Essex as Mr. Vice-chamberlain, who were to have been the means thereof, stand in with her Majesty, according to their occasions. And therefore I am only to stay upon that point of delaying and preserving the matter entire till a better constellation; which, as it is not hard, as I conceive, considering the French business and the instant progress, &c. so I commend in special to you the care, who in sort assured me thereof, and upon whom now, in my lord of Essex's absence, I have only to rely; and, if it be needful, I humbly pray you to move my lord your father to lay his hand to the same delay. And so I wish you all increase of honour.

Your honour's poor kinsman in faithful service and duty,

FRANCIS BACON.

From Gray's-Inn, this 1st of May, 1594.

SIR ROBERT CECIL'S ANSWER.‖

Cousin,

I do think nothing cut the throat more of your present access than the earl's being somewhat troubled at this time. For the delaying I think it not hard, neither shall there want my best endeavour to make it easy, of which I hope you shall not need to doubt by the judgment which I gather of divers circumstances confirming my opinion. I protest I suffer with you in mind, that you are thus gravelled; but time will founder all your competitors, and set you on your feet, or else I have little understanding.

EARL OF ESSEX TO MR. FRANCIS BACON.¶

Sir,

I wrote not to you till I had a second conference with the queen, because the first was spent only in compliments; she in the beginning excepted all business: this day she hath seen me again. After I had followed her humour in talking of those things, which she would entertain me with, I told her, in my absence I had written to Sir Robert Cecil, to solicit her to call you to that place, to which all the world had named you; and being now here, I must follow it myself; for I know what service I should do her in procuring you the place; and she knew not how great a comfort I should take in it. Her answer in playing just was, that she came not to me for that, I should talk of those things when I

§ Among the Papers of Antony Bacon, Esq. vol. iv. fol. 122, in the Lambeth library.

‖ Ibid.

¶ Ibid.

came to her, not when she came to me; the term was coming, and she would advise. I would have replied, but she stopped my mouth. To-morrow or the next day I will go to her, and then this excuse will be taken away. When I know more, you shall hear more; and so I end full of pain in my head, which makes me write thus confusedly.

Your most affectionate friend.

THE SAME TO THE SAME.*

Sir,

I WENT yesterday to the queen through the galleries in the morning, afternoon, and at night. I had long speech with her of you, wherein I urged both the point of your extraordinary sufficiency, proved to me not only by your last argument, but by the opinion of all men I spake withal, and the point of mine own satisfaction, which, I protested, should be exceeding great, if, for all her unkindness and discomforts past, she should do this one thing for my sake. To the first she answered, that the greatness of your friends, as of my lord treasurer and myself, did make men give no more favourable testimony than else they would do, thinking thereby they pleased us. And that she did acknowledge you had a great wit, and an excellent gift of speech, and much other good learning. But in law she rather thought you could make show to the uttermost of your knowledge, than that you were deep. To the second she said, she showed her mislike to the suit, as well as I had done my affection in it; and that if there were a yielding, it was fitter to be of my side. I then added, that this was an answer, with which she might deny me all things, if she did not grant them at the first, which was not her manner to do. But her Majesty had made me suffer and give way in many things else; which all I should bear, not only with patience, but with great contentment, if she would but grant my humble suit in this one. And for the pretence of the approbation given you upon partiality, that all the world, lawyers, judges, and all, could not be partial to you; for somewhat you were crossed for their own interest, and some for their friends; but yet all did yield to your merit. She did in this as she useth to all, went from a denial to a delay, and said, when the council were all here, she would think of it; and there was no haste in determining of the place. To which I answered, that my sad heart had need of hasty comfort: and therefore her Majesty must pardon me, if I were hasty and importunate in it. When they come we shall see what will be done; and I wish you all happiness, and rest

Your most affectionate friend,

ESSEX.

Indorsed, 18th of May, 1594.

* Among the papers of Antony Bacon, Esq. vol. iv. fol. 123. in the Lambeth library.

FOULKE GREVILL, ESQ. TO MR. FRANCIS BACON.†

Mr. Francis Bacon,

SATURDAY was my first coming to the court, from whence I departed again as soon as I had kissed her Majesty's hands, because I had no lodging nearer than my uncle's, which is four miles off. This day I came thither to dinner, and waiting for to speak with the queen, took occasion to tell how I met you, as I passed through London; and among other speeches, how you lamented your misfortune to me, that remained as a withered branch of her roots, which she had cherished and made to flourish in her service. I added what I thought of your worth, and the expectation for all this, that the world had of her princely goodness towards you: which it pleased her Majesty to confess, that indeed you began to frame very well, insomuch as she saw an amends in those little supposed errors, avowing the respect she carried to the dead, with very exceeding gracious inclination towards you. Some comparisons there fell out besides, which I leave till we meet, which I hope shall be this week. It pleased her withal to tell of the jewel you offered her by Mr. Vice-chamberlain, which she had refused, yet with exceeding praise. I marvel, that as a prince she should refuse those lovings of her poor subjects, because it did include a small sentence of despair; but either I deceive myself, or she was resolved to take it; and the conclusion was very kind and gracious. Sure as I will 100*l.* to 50*l.* that you shall be her solicitor, and my friend: in which mind and for which mind I commend you to God. From the court this Monday in haste,

Your true friend to be commanded by you,

FOULKE GREVILL.

We cannot tell whether she come to ——— or stay here. I am much absent for want of lodging; wherein my own man hath only been to blame.

Indorsed, 17th June, 1594.

MR. FRANCIS BACON TO THE QUEEN.‡

Most gracious and admirable sovereign,

As I do acknowledge a providence of God towards me, that findeth it expedient for me *tolerare jugum in juventute mea*: so this present arrest of mine by his Divine Majesty from your Majesty's service is not the least affliction, that I have proved; and I hope your Majesty doth conceive, that nothing under mere impossibility could have detained me from earning so gracious a vail, as it pleased your Majesty to give me. But your Majesty's service by the grace of God shall take no lack thereby; and thanks to God, it hath lighted upon him, that may be best spared. Only the discomfort is mine, who nevertheless have the private comfort, that in the time I

† Ibid. folio 132. ‡ Ibid. fol. 141 and 156.

have been made acquainted with this service, it hath been my hap to stumble upon somewhat unseen, which may import the same, as I made my lord keeper acquainted before my going. So leaving it to God to make a good end of a hard beginning, and most humbly craving your Majesty's pardon for presuming to trouble you, I recommend your sacred Majesty to God's tenderest preservation.

Your sacred Majesty's in most humble obedience and devotion,

FR. BACON.

From Huntingdon, this
20th of July, 1594.

MR. FRANCIS BACON TO HIS BROTHER ANTONY.*

My good brother,

One day draweth on another; and I am well pleased in my being here; for methinks solitariness collecteth the mind, as shutting the eyes doth the sight. I pray you therefore advertise me what you find, by my lord of Essex, (who, I am sure, hath been with you,) was done last Sunday; and what he conceiveth of the matter. I hold in one secret, and therefore you may trust your servant. I would be glad to receive my parsonage rent as soon as it cometh. So I leave you to God's good preservation.

Your ever loving brother,

FR. BACON.

From Twickenham-Park, this
Tuesday morning, 1594.

Indorsed, 16 Oct. 1594.

EARL OF ESSEX TO MR. FRANCIS BACON.†

Sir,

I will be to-morrow night at London. I purpose to hear your argument the next day. I pray you send me word by this bearer of the hour, and place, where it is. Of your own cause I shall give better account when I see you, than I can do now; for that which will be done, will be this afternoon, or to-morrow.

I am fast unto you, as you can be to yourself,

ESSEX.

Indorsed, 23 Oct. 1594.

MR. FRANCIS BACON TO HIS BROTHER ANTONY.‡

Good brother,

Since I saw you this hath passed. Tuesday, though sent for, I saw not the queen. Her Majesty alleged she was then to resolve with the council upon her places of law. But this resolution was *ut supra*; and note, the rest of the counsellors were persuaded she came rather forwards than otherwise; for against me she is never peremptory but to my lord of Essex. I missed a line of my lord keeper's; but thus much I hear otherwise. The queen seemeth to apprehend my travel. Whereupon I was sent for by Sir Robert Cecil in sort as from her Majesty; himself having of purpose immediately gone to London to speak with me; and not finding me there, he wrote to me. Whereupon I came to the court, and upon his relation to me of her Majesty's speeches, I desired leave to answer it in writing; not, I said, that I mistrusted his report, but mine own wit; the copy of which answer I send. We parted in kindness *secundum exterius*. This copy you must needs return; for I have no other; and I wrote this by memory after the original was sent away. The queen's speech is after this sort. *Why? I have made no solicitor. Hath any body carried a solicitor with him in his pocket? But he must have it in his own time*, (as if it were but yesterday's nomination,) *or else I must be thought to cast him away*. Then her Majesty sweareth thus; "If I continue this manner, she will seek all England for a solicitor rather than take me. Yea, she will send for Heuston and Coventry § to-morrow next," as if she would swear them both. Again she entereth into it, that "she never deals so with any as with me, *(in hoc erratum non est,)* she hath pulled me over the bar, *(note the words, for they cannot be her own,)* she hath used me in her greatest causes. But this is Essex; and she is more angry with him than with me." And such like speeches so strange as I should lose myself in it, but that I have cast off the care of it. My conceit is, that I am the least part of mine own matter. But her Majesty would have *a* delay, and yet would not bear it herself. Therefore she giveth no way to me, and she perceiveth her council giveth no way to others; and so it sticketh as she would have it. But what the secret of it is, *oculus aquilæ non penetravit*. My lord ‖ continueth on kindly and wisely a course worthy to obtain a better effect than a delay, which to me is the most unwelcome condition.

Now to return to you the part of a brother, and to render you the like kindness, advise you, whether it were not a good time to set in strongly with the queen to draw her to honour your travels. For in the course I am like to take, it will be a great and necessary stay to me, besides the natural comfort I shall receive. And if you will have me deal with my lord of Essex, or otherwise break it by mean to the queen, as that, which shall give me full contentment, I will do it as effectually, and with as much good discretion, as I can. Wherein if you aid me with your direction, I shall observe it. This as I did ever account it sure and certain to be accomplished, in case myself had been placed, and therefore deferred it till then, as to the proper op-

* Among the Papers of Antony Bacon, Esq. vol. iv. fol. 197, in the Lambeth library.

† Ibid. fol. 195.

‡ Ibid. fol. 28.

§ Thomas Coventry, afterwards one of the justices of the common pleas, and father of the lord keeper Coventry.

‖ Essex.

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portunity; so now that I see such delay in mine own placing, I wish *ex animo* it should not expect.

I pray you let me know what mine uncle Killigrew will do;* for I must be more careful of my credit than ever, since I receive so little thence where I deserved best. And to be plain with you, I mean even to make the best of those small things I have with as much expedition, as may be without loss; and so sing a mass of *requiem*, I hope, abroad. For I know her Majesty's nature, that she neither careth though the whole surname of Bacons travelled, nor of the Cecils neither.

I have here an idle pen or two, specially one, that was cozened, thinking to have got some money this term. I pray send me somewhat else for them to write out besides your Irish collection, which is almost done. There is a collection of king James, of foreign states, largeliest of Flanders; which, though it be no great matter, yet I would be glad to have it. Thus I commend you to God's good protection.

Your entire loving brother,

FR. BACON.

From my lodging at Twickenham-Park,
this 25th of January, 1594.

LETTER OF MR. FRANCIS BACON TO SIR ROBERT CECIL,† A COPY OF WHICH WAS SENT WITH THE PRECEDING TO MR. ANTONY BACON.

Sir,

Your honour may remember, that upon relation of her Majesty's speech concerning my travel, I asked leave to make answer in writing; not but I knew then what was true, but because I was careful to express it without doing myself wrong. And it is true, I had then opinion to have written to her Majesty; but since weighing with myself, that her Majesty gave no ear to the motion made by yourself, that I might answer by mine own attendance, I began to doubt the second degree, whether it might not be taken for presumption in me to write to her Majesty; and so resolved, that it was best for me to follow her Majesty's own way in committing it to your report.

It may please your honour to deliver to her Majesty, first, that it is an exceeding grief to me, that any not motion (for it was not a motion) but mention, that should come from me, should offend her Majesty, whom for these one and twenty years (for so long it is, that I kissed her Majesty's hands upon my journey into France) I have used the best of my wits to please.

Next, mine answer standing upon two points, the one, that this mention of travel to my lord of Essex was no present motion, suit, or request; but casting the worst of my fortune with an honourable friend, that had long used me privately, I told his lordship of this purpose of mine to travel, accompanying it with these very words, that upon her Majesty's rejecting me with such circumstance, though my heart might be good, yet mine eyes would be sore, that I should take no pleasure to look upon my friends; for that I was not an impudent man, that could face out a disgrace; and that I hoped her Majesty would not be offended, that, not able to endure the sun, I fled into the shade. The other, that it was more than this; for I did expressly and particularly (for so much wit God then lent me) by way of caveat restrain my lord's good affection, that he should in no wise utter or mention this matter till her Majesty had made a solicitor: wherewith (now since my looking upon your letter) I did in a dutiful manner challenge my lord, who very honourably acknowledged it, seeing he did it for the best: and therefore I leave his lordship to answer for himself. All this my lord of Essex can testify to be true; and I report me to yourself, whether at the first, when I desired deliberation to answer, yet nevertheless said, I would to you privately declare what had passed, I said not in effect so much. The conclusion shall be, that wheresoever God and her Majesty shall appoint me to live, I shall truly pray for her Majesty's preservation and felicity. And so I humbly commend me to you.

Your poor kinsman to do you service,

FR. BACON.

Indorsed, January, 1594.

The Speeches‡ drawn up by Mr. FRANCIS BACON *for the Earl of* ESSEX *in a device§ exhibited by his lordship before Queen* ELIZABETH, *on the anniversary of her accession to the throne November* 17, 1595.

THE SQUIRE'S SPEECH.

Most excellent and most glorious queen, give me

* Mr. Antony Bacon had written to Sir Henry Killigrew on the 14th of January, 1594-5, to desire the loan of two hundred pounds for six months. Vol. iv. fol. 4.

† Among the Papers of Antony Bacon, Esq. vol. iv. fol. 31.

‡ Bishop Gibson's papers, vol. v. No. 118.

§ An account of this *device*, which was much applauded, is given by Mr. Rowland Whyte to Sir Robert Sydney, in a letter dated at London, Saturday the 22nd of November, 1595, and printed in the *Letters and Memorials of State* of the Sydney family, vol. i. p. 362. According to this letter, the earl of Essex, some considerable time before he came himself into the tilt-yard, sent his page with some speech to the queen, who returned with her Majesty's glove; and when his lordship came himself, he was met by an old hermit, a secretary of state, a brave soldier, and an esquire. The first presented him with a book of meditations; the second with political discourses; the third with orations of bravely fought battles; the fourth was his own follower to whom the other three imparted much of their purpose before the earl came in. "Another," adds Mr. Whyte, "devised with him, persuading him to this and that course of life, according to their inclinations. Comes into the tilt-yard, unthought upon, the ordinary post-boy of London, a ragged villain, all bemired, upon a poor lean jade galloping and blowing for life, and delivered the secretary a packet of letters, which he presently offered my lord of Essex. And with this dumb show our eyes were fed for that time. In the after-supper, before the queen; they first delivered a well-penned speech to move this worthy knight to leave his following of love, and to betake him to heavenly meditation; the secretary's all tending to have him follow matters of state; the soldier's persuading him to the war: but the squire answered them all, and concluded with an excellent, but too plain, English, that this knight would never forsake his mistress's love, whose virtue made all his thoughts divine; whose wisdom

leave, I beseech your Majesty, to offer my master's complaint and petition; complaint, that coming hither to your Majesty's most happy day, he is tormented with the importunity of a melancholy dreaming hermit, a mutinous brain-sick soldier, and a busy tedious secretary. His petition is, that he may be as free as the rest; and, at least, whilst he is here, troobled with nothing but with care how to please and honour you.

THE HERMIT'S SPEECH IN THE PRESENCE.

Though our ends be diverse, and therefore may be one more just than another; yet the complaint of this Squire is general, and therefore alike unjust against us all. Albeit he is angry, that we offer ourselves to his master uncalled, and forgets we come not of ourselves, but as the messengers of self-love, from whom all that comes should be well taken. He saith, when we come, we are importunate. If he mean, that we err in form, we have that of his master, who being a lover, useth no other form of soliciting. If he will charge us to err in matter, I for my part will presently prove, that I persuade him to nothing but for his own good. For I wish him to leave turning over the book of fortune, which is but a play for children; when there be so many books of truth and knowledge, better worthy the revolving; and not fix his view only upon a picture in a little table, when there be so many tables of histories, yea to life, excellent to behold and admire. Whether he believe me or no, there is no prison to the prison of the thoughts, which are free under the greatest tyrants. Shall any man make his conceit, as an anchorite, mured up with the compass of one beauty or person, that may have the liberty of all contemplation? Shall he exchange the sweet travelling through the universal variety, for one wearisome and endless round or labyrinth? Let thy master, Squire, offer his service to the *muses*. It is long since they received any into their court. They give alms continually at their gate, that many come to live upon; but few they have ever admitted into their palace. There shall he find secrets not dangerous to know; sides and parties not factions to hold; precepts and commandments not penal to disobey. The gardens of love, wherein he now placeth himself, are fresh to-day, and fading to-morrow, as the sun comforts them, or is turned from them. But the gardens of the muses keep the privilege of the golden age; they ever flourish, and are in league with time. The monuments of wit survive the monuments of power. The verses of a poet endure without a syllable lost, while states and empires pass many periods. Let him not think he shall descend; for he is now upon a hill, as a ship is mounted upon the ridge of a wave: but that hill of the muses is above tempests, always clear and calm; a hill of the goodliest discovery that man can have, being a prospect upon all the errors and wanderings of the present and former times. Yea, in some cliff it leadeth the eye beyond the horizon of time, and giveth no obscure divinations of times to come. So that if he will indeed lead *vitam vitalem*, a life that unites safety and dignity, pleasure and merit; if he will win admiration without envy; if he will be in the feast, and not in the throng; in the light, and not in the heat; let him embrace the life of study and contemplation. And if he will accept of no other reason, yet because the gift of the muses will enworthy him in love, and where he now looks on his mistress's outside with the eyes of sense, which are dazzled and amazed, he shall then behold her high perfections and heavenly mind with the eyes of judgment, which grow stronger by more nearly and more directly viewing such an object.

THE SOLDIER'S SPEECH.

Squire, the good old man hath said well to you; but I dare say, thou wouldst be sorry to leave to carry thy master's shield, and to carry his books: and I am sure thy master had rather be a falcon, a bird of prey, than a singing bird in a cage. The muses are to serve martial men, to sing their famous actions; and not to be served by them. Then hearken to me.

It is the war that giveth all spirits of valour, not only honour, but contentment. For mark, whether ever you did see a man grown to any honourable commandment in the wars, but whensoever he gave it over, he was ready to die with melancholy? Such a sweet felicity is that noble exercise, that he, that hath tasted it thoroughly, is distasted for all other. And no marvel; for if the hunter takes such solace in his chace; if the matches and wagers of sport pass away with such satisfaction and delight; if the looker on be affected with pleasure in the representation of a feigned tragedy; think what contentment a man receiveth, when they, that are equal to him in nature, from the height of insolency and fury are brought to the condition of a chased prey; when a victory is obtained, whereof the victories of games are but counterfeits and shadows; and, when in a lively tragedy, a man's enemies are sacrificed before his eyes to his fortune.

Then for the dignity of military profession, is it not the truest and perfectest practice of all virtues? of wisdoms in disposing those things, which are most subject to confusion and accident: of justice, in continual distributing rewards: of temperance, in exercising of the straitest discipline: of fortitude, in toleration of all labours, and abstinence from effeminate delights: of constancy, in bearing and

taught him all true policy; whose beauty and worth were at all times able to make him fit to command armies. He showed all the defects and imperfections of all their times; and therefore thought his course of life to be best in serving his mistress." Mr. Whyte then mentions, that the part of the old *hermit* was performed by him, who at Cambridge played that of *Giraldi*; that Morley acted the *secretary*, and that the *soldier* was represented by him, who acted the *pedant*, and that Mr. Tobie Matthew was the *squire*. "The world," says Mr. Whyte, "makes many untrue constructions of these speeches, comparing the hermit and the secretary to two of the lords; and the soldier to Sir Roger Williams. But the queen said, that if she had thought there had been so much said of her, she would not have been there that night; and so went to bed."

digesting the greatest variety of fortune. So that when all other places and professions require but their several virtues, a brave leader in the wars must be accomplished with all. It is the wars that are the tribunal seat, where the highest rights and possessions are decided; the occupation of kings, the root of nobility, the protection of all estates. And lastly, lovers never thought their profession sufficiently graced, till they have compared it to a warfare. All, that in any other profession can be wished for, is but to live happily; but to be a brave commander in the field, death itself doth crown the head with glory. Therefore, Squire, let thy master go with me; and though he be resolved in the pursuit of his love, let him aspire to it by the noblest means. For ladies count it no honour to subdue them with their fairest eyes, which will be daunted with the fierce encounter of an enemy. And they will quickly discern a champion fit to wear their glove, from a page not worthy to carry their pantofle. Therefore, I say again, let him seek his fortune in the field, where he may either lose his love, or find new argument to advance it.

THE STATESMAN'S SPEECH.

Squire, my advice to thy master shall be as a token wrapped up in words: but then will it show itself fair when it is unfolded in his actions. To wish him to change from one humour to another, were but as if, for the cure of a man in pain, one should advise him to lay upon the other side, but not enable him to stand on his feet. If from a sanguine delightful humour of love, he turn to a melancholy retired humour of contemplation, or a turbulent boiling humour of the wars; what doth he but change tyrants? Contemplation is a dream; love, a trance; and the humour of war is raving. These be shifts of humour, but no reclaiming to reason. I debar him not studies nor books, to give him stay and variety of conceit, refresh his mind, to cover sloth and indisposition, and to draw to him from those that are studious, respect and commendation. But let him beware, lest they possess not too much of his time; that they abstract not his judgment from present experience, nor make him presume upon knowing much, to apply the less. For the wars, I deny him no enterprise, that shall be worthy in greatness, likely in success, or necessary in duty; not mixed with any circumstance of jealousy, but duly laid upon him. But I would not have him take the alarm from his own humour, but from the occasion; and I would again he should know an employment from a discourting. And for his love, let it not disarm his heart within, as to make him too credulous to favours, nor too tender to unkindnesses, nor too apt to depend upon the heart he knows not. Nay in his demonstration of love, let him not go too far; for these seely lovers, when they profess such infinite affection and obligation, they tax themselves at so high a rate, that they are ever under arrest. It makes their service seem nothing, and every cavil or imputation very great. But what, Squire, is thy master's end? If to make the prince happy he serves, let the instructions to employ men, the relations of ambassadors, the treaties between princes, and actions of the present time, be the books he reads: let the orations of wise princes, or experimented counsellors, in council or parliament, and the final sentences of grave and learned judges in weighty and doubtful causes, be the lecturers he frequents. Let the holding of affection with confederates without charge, the frustrating of the attempts of enemies without battles, the entitling of the crown to new possessions without show of wrong, the filling of the prince's coffers without violence, the keeping of men in appetite without impatience, be the inventions he seeks out. Let policy and matters of state be the chief, and almost the only thing he intends. But if he will believe *Philautia*, and seek most his own happiness, he must not of them embrace all kinds, but make choice, and avoid all matter of peril, displeasure, and charge, and turn them over to some novices, that know not manacles from bracelets, nor burdens from robes. For himself, let him set for matters of commodity and strength, though they be joined with envy. Let him not trouble himself too laboriously to sound into any matter deeply, or to execute any thing exactly; but let himself make himself cunning rather in the humours and drifts of persons, than in the nature of business and affairs. Of that it sufficeth to know only so much, as may make him able to make use of other men's wits, and to make again a smooth and pleasing report. Let him entertain the proposition of others, and ever rather let him have an eye to the circumstances, than to the matter itself; for then shall he ever seem to add somewhat of his own: and besides, when a man doth not forget so much as a circumstance, men do think his wit doth superabound for the substance. In his counsels let him not be confident; for that will rather make him obnoxious to the success; but let him follow the wisdom of oracles, which uttered that which might ever be applied to the event. And ever rather let him take the side which is likeliest to be followed, than that which is soundest and best, that every thing may seem to be carried by his direction. To conclude, let him be true to himself, and avoid all tedious reaches of state, that are not merely pertinent to his particular. And if he will needs pursue his affection, and go on his course, what can so much advance him in his own way? The merit of war is too outwardly glorious to be inwardly grateful: and it is the exile of his eyes, which looking with such affection upon the picture, cannot but with infinite contentment behold the life. But when his mistress shall perceive, that his endeavours are become a true support of her, a discharge of her care, a watchman of her person, a scholar of her wisdom, an instrument of her operation, and a conduit of her virtue; this, with his diligences, accesses, humility, and patience, may move her to give him further degrees and approaches to her favour. So that I conclude, I have traced him the way to that, which hath been granted to some few, *amare et sapere*, to love and to be wise.

THE REPLY OF THE SQUIRE.

Wanderino Hermit, storming Soldier, and hollow Statesman, the enchanting orators of *Philautia*, which have attempted by your high charms to turn resolved *Erophilus* into a statue deprived of action, or into a vulture attending about dead bodies, or into a monster with a double heart; with infinite assorance, but with just indignation and forced patience, I have suffered you to bring in play your whole forces. For I would not vouchsafe to combat you one by one, as if I trusted to the goodness of my breath, and not the goodness of my strength, which little needeth the advantage of your severing, and much less of your disagreeing. Therefore, first, I would know of you all what assurance you have of the fruit whereto you aspire.

You, Father, that pretend to truth and knowledge, how are you assured that you adore not vain chimæras and imaginations? that in your high prospect, when you think men wander up and down; that they stand not indeed still in their place? and it is some smoke or cloud between you and them, which moveth, or else the dazzling of your own eyes? Have not many, which take themselves to be inward counsellors with nature, proved but idle believers, which told us tales, which were no such matter? And, Soldier, what security have you for these victories and garlands which you promise to yourself? Know you not of many which have made provision of laurel for the victory, and have been fain to exchange it with cypress for the funeral? of many which have bespoken fame to sound their triumphs, and have been glad to pray her to say nothing of them, and not to discover them in their flights?

Corrupt Statesman, you that think by your engines and motions to govern the wheel of fortune, do you not mark, that clocks cannot be long in temper? that jugglers are no longer in request, when their tricks and slights are once perceived? Nay, do you not see, that never any man made his own cunning and practice, without religion and moral honesty, his foundation, but he overbuilt himself, and in the end made his house a windfall? But give ear now to the comparison of my master's condition, and acknowledge such a difference, as is betwixt the melting hailstone and the solid pearl. Indeed it seemeth to depend, as the globe of the earth seemeth to hang, in the air; but yet it is firm and stable in itself. It is like a cube, or a die-form, which toss it or throw it any way, it ever lighteth upon a square. Is he denied the hopes of favours to come? He can resort to the remembrance of contentments past. Destiny cannot repeal that which is past. Doth he find the acknowledgment of his affection small? He may find the merit of his affection the greater. Fortune cannot have power over that which is within. Nay, his falls are like the falls of Antæus; they renew his strength. His clouds are like the clouds of harvest, which make the sun break forth with greater force. His wanes are changes like the moon's, whose globe is all light towards the sun, when it is all dark towards the world; such is the excellency of her nature, and of his estate. Attend, you beadsman of the muses, you take your pleasure in a wilderness of variety; but it is but of shadows. You are as a man rich in pictures, medals, and crystals. Your mind is of the water, which taketh all forms and impressions, but is weak of substance. Will you compare shadows with bodies, picture with life, variety of many beauties with the peerless excellency of one? the element of water with the element of fire? and such is the comparison between knowledge and love.

Come out, man of war; you must be ever in noise. You will give laws, and advance force, and trouble nations, and remove land-marks of kingdoms, and hunt men, and pen tragedies in blood: and that, which is worst of all, make all the virtues accessary to bloodshed. Hath the practice of force so deprived you of the use of reason, as that you will compare the interruption of society with the perfection of society? the conquest of bodies with the conquest of spirits? the terrestrial fire, which destroyeth and dissolveth, with the celestial fire, which quickeneth and giveth life? And such is the comparison between the soldier and the lover.

And as for you, untrue Politique, but truest bondman to *Philautia*, you that presume to bind occasion, and to overwork fortune, I would ask you but one question. Did ever any lady, hard to please, or disposed to exercise her lover, enjoin him so good tasks and commandments, as *Philautia* exacteth of you? While your life is nothing but a continual acting upon a stage; and that your mind must serve your humour, and yet your outward person must serve your end; so as you carry in one person two several servitudes to contrary masters. But I will leave you to the scorn of that mistress, whom you undertake to govern; that is, to fortune, to whom *Philautia* hath bound you. And yet, you commissioner of *Philautia*, I will proceed one degree farther: if I allowed both of your assurance, and of your values, as you have set them, may not my master enjoy his own felicity, and have all yours for advantage? I do not mean, that he should divide himself in both pursuits, as in your feigning tales towards the conclusion you did yield him; but because all these are in the hands of his mistress more fully to bestow, than they can be attained by your addresses, knowledge, fame, fortune. For the *muses*, they are tributary to her Majesty for the great liberties they have enjoyed in her kingdom, during her most flourishing reign; in thankfulness whereof they have adorned and accomplished her Majesty with the gifts of all the sisters. What library can present such a story of great actions, as her Majesty carrieth in her royal breast by the often return of this happy day? What worthy author or favourite of the muses, is not familiar with her? Or what language, wherein the muses have used to speak, is unknown to her? Therefore, the hearing of her, the observing of her, the receiving instructions from her, may be to *Erophilus* a lecture exceeding all dead monuments of the muses. For *Fame*, can all the exploits of the war win him such a title, as to have the name of favoured and selected

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servant of such a queen? For *Fortune*, can any insolent politique promise to himself such a fortune, by making his own way, as the excellency of her nature cannot deny to a careful, obsequious, and dutiful servant? And if he could, were it equal honour to obtain it by a shop of cunning, as by the gift of such a hand?

Therefore *Erophilus*'s resolution is fixed: he renounceth *Philautia*, and all her enchantments. For her recreation, he will confer with his muse: for her defence and honour, he will sacrifice his life in the wars, hoping to be embalmed in the sweet odours of her remembrance. To her service will he consecrate all his watchful endeavours, and will ever bear in his heart the picture of her beauty; in his actions, of her will; and in his fortune, of her grace and favour.

TO SIR THOMAS EGERTON, LORD KEEPER OF THE GREAT SEAL.*

MAY IT PLEASE YOUR HONOURABLE GOOD LORDSHIP,

OF your lordship's honourable disposition, both generally and to me, I have that belief, as what I think, I am not afraid to speak; and what I would speak, I am not afraid to write. And therefore I have thought to commit to letter some matter, whereunto [which] I have been [conceived] led [into the same] by two motives; the one, the consideration of my own estate; the other, the appetite, which I have to give your lordship some evidence of the thoughtful and voluntary desire, which is in me, to merit well of your most honourable lordship: which desire in me hath been bred chiefly by the consent I have to your great virtue come in good time to do this state pleasure; and next by your loving courses held towards me, especially in your nomination and enablement of me long since to the solicitor's place, as your lordship best knows. Which your two honourable friendships I esteem so much [in so great sort] as your countenance and favour in my practice, which are somewhat to my poverty; yet I count them not the best [greatest] part of the obligation, wherein I stand bound to you.

And now, my lord, I pray you right humbly, that you will vouchsafe your honourable licence and patience, that I may express to you, what in a doubtful liberty I have thought fit, partly by way of praying your help, and partly by way of offering my good will; partly again by way of pre-occupating your conceit, lest you may in some things mistake.

My estate, to confess a truth to your lordship, is weak and indebted, and needeth comfort; for both my father, though I think I had greatest part in his love to all his children, yet in his wisdom served me in as a last comer; and myself, in mine own industry, have rather referred and aspired to virtue than to gain; whereof I am not yet wise enough to repent me. But the while, whereas Solomon speaketh that *want cometh* first *like a wayfaring* man, and after like *an armed man*, I must acknowledge to your lordship myself to [be] *in primo gradu*; for it stealeth upon me. But for the second, that it should not be able to be resisted, I hope in God I am not in that case; for the preventing whereof, as I do depend upon God's providence all in all, so in the same his providence I see opened unto me three not unlikely expectations of help: the one, my practice; the other, some proceeding in the queen's service; the third, [the] place I have in reversion; which, as it standeth now unto me, is but like another man's ground reaching upon my house, which may mend my prospect, but it doth not fill my barn.

For my practice, it presupposeth my health, which, if I should judge of as a man that judgeth of a fair morrow by a fair evening, I might have reason to value well. But myself having this error of mind, that I am apter to conclude in every thing of change from the present tense than of a continuance, do make no such appointment. Besides, I am not so far deceived in myself, but that I know very well, and I think your lordship is *major corde*, and in your wisdom you note it more deeply than I can in myself, that in practising the law, I play not all my best game, which maketh me accept it with a *nisi quod potius*, as the best of my fortune, and a thing agreeable to better gifts than mine, but not to mine.

For my placing, your lordship best knows, that when I was much dejected with her Majesty's strange dealing towards me, it pleased you of your singular favour so far to comfort and encourage me, as to hold me worthy to be excited to think of succeeding your lordship in your second place;† signifying in your plainness, that no man should better content yourself: which your exceeding favour you have not since varied from, both in pleading the like signification into the hands of some of my best friends, and also in an honourable and answerable nomination and commendation of me to her Majesty. Wherein I hope your lordship, if it please you to call to mind, did find me neither overweening in presuming too much upon it, nor much deceived in my opinion of the event for the continuing it still in yourself, nor sleepy in doing some good offices to the same purpose.

Now upon this matter I am to make your lordship three humble requests, which had need be very reasonable, coming so many together. First, that your lordship will hold and make good your wishes towards me in your own time; for no other I mean it; and in thankfulness thereof, I will present your lordship with the fairest flower of my estate; though it yet bear no fruit; and that is the poor reversion, which of her Majesty's gift I hold; in the which I shall be no less willing Mr. John Egerton,‡ if it seem

* From the original draught in the library of Queen's College, Oxford, Arch. D. 2. the copy of which was communicated to me by Thomas Tyrwhytt, Esq. clerk of the honourable House of Commons. Sir William Dugdale in his *Baronage of England*, vol. ii. p. 438, has given two short passages of this letter transcribed by him from the unpublished original.

† The mastership of the rolls; which office the lord keeper held till the lord Bruce was advanced to it, May 18, 1603.

‡ Second son of the lord keeper, whose eldest son Sir Thomas, knighted at Cadiz upon the taking it in 1596 by the earl of Essex, died in Ireland, whither he attended that earl in 1599, as Mr. John Egerton likewise did, and was knighted by his lordship, and at the coronation of king James was

good to you, should succeed me in that, than I would be willing to succeed your lordship in the other place.

My next humble request is, that your lordship would believe a protestation, which is, that if there be now against the next term, or hereafter, for a little bought knowledge of the court teacheth me to foresee these things, any heaving or palting at that place, upon mine honesty and troth, my spirit is not in, nor with it; I, for my part, being resolutely resolved not to proceed one pace or degree in this matter but with your lordship's foreknowledge and approbation. The truth of which protestation will best appear, if by any accident, which I look not for, I shall receive any farther strength. For, as I now am, your lordship may impute it only to policy alone in me, that being without present hope myself, I would be content the matter sleep.

My third humble petition to your lordship is, that you would believe an intelligence, and not take it for a fiction in court; of which manner I like Cicero's speech well, who writing to Appius Claudius, saith; "Sin attem quæ tibi ipsi in mentem veniant, ea aliis tribuere soles, inducis genus sermonis in amicitiam minime liberale." But I do assure your lordship, it is both true and fresh, and from a person of that sort, as having some glimpse of it before, I now rest fully confirmed in it: and it is this, that there should be a plot laid of some strength between Mr. Attorney-General,* and Mr. Attorney of the wards,† for the one's remove to the rolls, and the other to be drawn to his place. Which, to be plain with your lordship, I do apprehend much. For first, I know Mr. Attorney-General, whatsoever he pretendeth or protesteth to your lordship, or any other, doth seek it; and I perceive well by his dealing towards his best friends, to whom he oweth most, how perfectly he hath conned the adage of "proximus egomet mihi:" and then I see no man ripened for the place of the rolls in competition with Mr. Attorney-General. And lastly, Mr. Attorney of the wards being noted for a pregnant and stirring man, the objection of any hurt her Majesty's business may receive in her causes by the drawing up of Mr. Attorney-General, will wax cold. And yet nevertheless, if it may please your lordship to pardon me so to say, of the second of those placings I think with some scorn; only I commend the knowledge hereof to your lordship's wisdom, as a matter not to be neglected.

And now lastly, my honourable good lord, for my third poor help, I account [it] will do me small good, except there be a heave; and that is this place of the star-chamber. I do confess ingenuously to your lordship out of my love to the public, besides my particular, that I am of opinion, that rules without examples will do little good, at least not to continue; but that there is such a concordance between the time to come and the time passed, as there will be no reforming the one without informing of the other. And I will not, as the proverb is, spit against the wind, but yield so far to a general opinion, as there was never a more * * or particular example. But I submit it wholly to your honourable grave consideration; only I humbly pray you to conceive that it is not any money that I have borrowed of Mr. Mills, nor any gratification I receive for my aid, that makes me show myself any ways in it, but simply a desire to preserve the rights of the office, as far as it is meet and incorrupt; and secondly his importunity, who nevertheless, as far as I see, taketh a course to bring this matter in question to his farther disadvantage, and to be principal in his own harm. But if it be true, that I have heard of more than one or two, that besides this fore-running in taking of fees, there are other deep corruptions, which in an ordinary course are intended to be proved against him; surely, for my part, I am not superstitious, as I will not take any shadow of it, nor labour to stop it, since it is a thing medicinable for the office of the realm. And then if the place by such an occasion or otherwise should come in possession, the better to testify my affection for your lordship, I should be glad, as I offered it to your lordship by way of [surrender,] so in this case to offer it by way of joint-patentey, in nature of a reversion, which, as it is now, there wanteth no good will in me to offer, but that both, in that condition it is not worth the offering; and besides, I know not whether my necessity may enforce me to sell it away; which, if it were locked in by any reversion or joint-patentey, I were disabled to do for my relief.

Thus your lordship may perceive how assured a persuasion I have of your love towards me, and care of me; which hath made me so freely to communicate of my poor state with your lordship, as I could have done to my honourable father, if he had lived; which I most humbly pray your lordship may be private to yourself, to whom I commit it to be used to such purpose, as in your wisdom and honourable love and favour should seem good. And so humbly craving pardon, I commend your lordship to the divine preservation.

At your lordship's honourable command humbly and particularly.

MR. FRANCIS BACON TO THE EARL OF ESSEX,‡ ON HIS LORDSHIP'S GOING ON THE EXPEDITION AGAINST CADIZ.

My singular good lord,

I have no other argument to write on to your good lordship, but upon demonstration of my deepest and most bounden duty, in fulness whereof I mourn for your lordship's absence, though I mitigate it as much as I can with the hope of your happy success, the greatest part whereof, be it never so great, will be the safety of your most honourable

made knight of the Bath. He succeeded his father in the titles of baron of Ellesmere and viscount Brackley, and on the 17th of May was created earl of Bridgewater.

* Coke.

† Probably Sir Thomas Heskett, who died 15th October, 1605, and has a monument erected to his memory in Westminster Abbey.

‡ Among the Papers of Antony Bacon, Esq. vol. xi. fol. 69, in the Lambeth library.

person: for the which in the first place, and then for the prosperity of your enterprise, I frequently pray. And as in so great discomfort it hath pleased God some ways to regard my desolateness by raising me so great and so worthy a friend in your absence, as the new-placed lord keeper,* in whose placing as it hath pleased God to establish mightily one of the chief pillars of this estate, that is, the justice of the land, which began to shake and sink, and for that purpose no doubt gave her Majesty strength of heart of herself to do that in six days, which the deepest judgment thought would be the work of many months; so for my particular, I do find in an extraordinary manner, that his lordship doth succeed my father almost in his fatherly care of me, and love towards me, as much as he professeth to follow him in his honourable and sound courses of justice and estate; of which so special favour the open and apparent reason I can ascribe to nothing more than the impression, which upon many conferences of long time used between his lordship and me, he may have received, both of your lordship's high love and good opinion towards his lordship, verified in many and singular offices, whereof now the realm, rather than himself, is like to reap the fruit; and also of your singular affection towards me, as a man chosen by you to set forth the excellency of your nature and mine, though with some error of your judgment. Hereof if it may please your lordship to take knowledge to my lord, according to the style of your wonted kindness, your lordship shall do me great contentment. My lord told me he had written to your lordship, and wished with great affection he had been so lucky, as to have had two hours' talk with you upon those occasions, which have since fallen out. So wishing that God may conduct you by the hand pace by pace, I commend you and your actions to his divine providence.

Your lordship's ever deepliest bounden,

FR. BACON.

10 May, 1596.

THE EARL OF ESSEX TO MR. FRANCIS BACON.†

SIR,

I HAVE thought the contemplation of the art military harder than the execution. But now I see where the number is great, compounded of sea and land forces, the most *tyrones*, and almost all voluntaries, the officers equal almost in age, quality, and standing in the wars, it is hard for any man to approve himself a good commander. So great is my zeal to omit nothing, and so short my sufficiency to perform all, as, besides my charge, myself doth afflict myself. For I cannot follow the precedents of our dissolute armies, and my helpers are a little amazed with me, when they are come from governing a little troop to a great; and from ——— to all the great spirits of our state. And sometimes I am as much troubled with them, as with all the troops. But though these be warrants for my seldom writing, yet they shall be no excuses for my fainting industry. I have written to my lord keeper and some other friends to have care of you in my absence. And so commending you to God's happy and heavenly protection, I rest

Your true friend,

ESSEX.

Plymouth, this 17th of May, 1596.

MR. FRANCIS BACON TO HIS BROTHER ANTONY.‡

GOOD BROTHER,

YESTERNIGHT Sir John Forteseu§ told me he had, not many hours before, imparted to the queen your advertisements, and the gazette likewise; which the queen caused Mr. John Stanhope‖ to read all over unto her; and her Majesty conceiveth they be not vulgar. The advertisements her Majesty made estimation of as concurring with other advertisements, and alike concurring also with her opinion of the affairs. So he willed me to return you the queen's thanks. Other particular of any speech from her Majesty of yourself he did not relate to me. For my lord of Essex's and your letters, he said, he was ready and desirous to do his best. But I seemed to make it but a love-wish, and passed presently from it, the rather because it was late in the night, and I mean to deal with him at some better leisure after another manner, as you shall hereafter understand from me. I do find in the speech of some ladies and the very face of the court some addition of reputation, as methinks, to us both; and I doubt not but God hath an operation in it, that will not suffer good endeavours to perish.

The queen saluted me to-day, as she went to chapel. I had long speech with Sir Robert Cecil this morning, who seemed apt to discourse with me; yet of yourself *ne verbum quidem*, not so much as a *quomodo valet?*

This I write to you in haste, *aliud ex alio*, I pray set in a course of acquainting my lord keeper what passeth, at first by me, and after from yourself. I am more and more bound to him.

Thus wishing you good health, I recommend you to God's happy preservation.

Your entire loving brother,

FR. BACON.

From the court, this 30th of May, [1596.]

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* Egerton.

† Among the Papers of Antony Bacon, Esq. vol. xi. fol. 139, in the Lambeth library.

‡ Ibid. vol. xi. fol. 29.

§ Chancellor of the exchequer.

‖ Made treasurer of the chamber, in July, 1596, and in May, 1605, created lord Stanhope of Harrington, in Northamptonshire.

TO SIR THOMAS EGERTON, LORD KEEPER OF THE GREAT SEAL.*

IT MAY PLEASE YOUR LORDSHIP,

I AM to make humble complaint to your lordship of some hard dealing offered me by one Sympson, a goldsmith, a man noted much, as I have heard, for extremities and stoutness upon his purse; but yet I could scarcely have imagined, he would have dealt either so dishonestly towards myself, or so contemptuously towards her Majesty's service. For this Lombard, pardon me, I most humbly pray your lordship, if, being admonished by the street he dwells in, I give him that name, having me in bond for 300*l.* principal, and I having the last term confessed the action, and by his full and direct consent respited the satisfaction till the beginning of this term to come, without ever giving me warning, either by letter or message, served an execution upon me, having trained me at such time, as I came from the Tower, where, Mr. Waad can witness, we attended a service of no mean importance.† Neither would he so much as vouchsafe to come and speak with me to take any order in it, though I sent for him divers times, and his house was just by; handling it as upon a despite, being a man I never provoked with a cross word, no nor with many delays. He would have urged it to have had me in prison; which he had done, had not sheriff More, to whom I sent, gently recommended me to a handsome house in Coleman-street, where I am. Now because he will not treat with me, I am enforced humbly to desire your lordship to send for him, according to your place, to bring him to some reason; and this forthwith, because I continue here to my farther discredit and inconvenience, and the trouble of the gentleman with whom I am. I have a hundred pounds lying by me, which he may have, and the rest upon some reasonable time and security; or if need be, the whole; but with my more trouble. As for the contempt he hath offered, in regard her Majesty's service, to my understanding, carrieth a privilege *eundo et redeundo* in meaner causes, much more in matters of this nature, especially in persons known to be qualified with that place and employment, which, though unworthy, I am vouchsafed, I enforce nothing, thinking I have done my part, when I have made it known; and so leave it to your lordship's honourable consideration. And so with signification of my humble duty, &c.

* From the original in the Hatfield collection of state papers, communicated to me by the Rev. William Murden, B.D. and intended by him for the public in a third volume of the collection of those papers, if his death had not prevented him from executing his design.

† It is not easy to determine what this service was; but it seems to relate to the examination of some prisoner; perhaps Edward Squire, executed in November, 1598, for poisoning the queen's saddle; or Valentine Thomas, who accused the king of Scots of practices against queen Elizabeth, [*Historical View*, p. 178.] or one Stanley; concerning whom I shall insert here passages from two MS. letters of John Chamberlain, Esq., to his friend, Dudley Carleton, Esq., afterwards ambassador to Venice, the United Provinces, and France; these letters being part of a very large collection, from 1598 to 1625, which I transcribed from the originals. "One Stanley," says Mr. Chamberlain, in his letter dated at London, 3 October, 1598, "that came in sixteen days over land with letters out of Spain, is lately committed to the Tower. He was very earnest to have private conference with her Majesty, pretending matter of great importance, which he would by no means utter to any body else." In another letter dated 20 November, 1598, Mr. Chamberlain observes, that on "the day that they looked for Stanley's arraignment, he came not himself, but sent his forerunner, one Squire, that had been an under purveyor of the stable, who being in Spain was dealt withal by one Walpole, a jesuit, to poison the queen and the earl of Essex; and accordingly came prepared into England, and went with the earl in his own ship the last journey, and poisoned the arms or handles of the chair he used to sit in, with a confection he had received of the Jesuit; as likewise he had done the pommel of the queen's saddle not past five days before his going to sea. But because nothing succeeded of it, the priest thinking he had either changed his purpose, or betrayed it, gave Stanley instructions to accuse him: thereby to get him more credit, and to be revenged of Squire for breaking promise. The fellow confessed the whole practice, and, as it seemed, died very penitent."

‡ From the Hatfield collection.

§ Francis Bacon.

‖ Robert earl of Essex.

TO SIR ROBERT CECIL, SECRETARY OF STATE.‡

IT MAY PLEASE YOUR HONOUR,

I HUMBLY pray you to understand how badly I have been used by the enclosed, being a copy of a letter of complaint thereof which I have written to the lord keeper. How sensitive you are of wrongs offered to your blood in my particular, I have had not long since experience. But herein I think your honour will be doubly sensitive, in tenderness also of the indignity to her Majesty's service. For as for me, Mr. Sympson might have had me every day in London; and therefore to delay me, while he knew I came from the Tower about her Majesty's special service, was to my understanding very bold. And two days before he brags he forbore me, because I dined with sheriff More. So as with Mr. Sympson, examinations at the Tower are not so great a privilege, *eundo et redeundo*, as sheriff More's dinner. But this complaint I make in duty; and to that end have also informed my lord of Essex thereof; for otherwise his punishment will do me no good.

So with signification of my humble duty, I commend your honour to the divine preservation.

At your honourable command particularly,

FR. BACON.

From Coleman-street, this
24th of September [1598.]

The Substance of a Letter I § now wish your Lordship‖ should write to her Majesty.

THAT you desire her Majesty to believe *id, quod, res ipsa loquitur*, that it is not conscience to yourself of any advantage her Majesty hath towards you, otherwise than the general and infinite advantage of a queen and a mistress; nor any drift or device to win her Majesty to any point or particular, that

moveth you to send her these lines of your own mind. But first, and principally, gratitude; next, a natural desire of, you will not say, the tedious remembrance, for you can hold nothing tedious, that hath been derived from her Majesty; but the troubled and pensive remembrance of that which is past, of enjoying better times with her Majesty, such as others have had, and that you have wanted. You cannot impute the difference to the continuance of time, which addeth nothing to her Majesty but increase of virtue; but rather to your own misfortune or errors. Wherein nevertheless, if it were only question of your own endurances, though any strength never so good may be oppressed, yet you think you should have suffocated them, as you had often done, to the impairing of your health, and weighing down of your mind. But that, which indeed toucheth the quick, is that, whereas you accounted it the choice fruit of yourself to be a contentment and entertainment to her Majesty's mind, you found many times to the contrary, that you were rather a disquiet to her, and a distaste.

Again, whereas in the course of her service, though you confess the weakness of your own judgment, yet true zeal, not misled with any mercenary nor glorious respect, made you light sometimes upon the best and soundest counsels; you had reason to fear, that the distaste particular against yourself made her Majesty farther off from accepting any of them from such a hand. So as you seemed, to your deep discomfort, to trouble her Majesty's mind, and to foil her business; inconveniences, which, if you be minded as you ought, thankfulness should teach you to redeem, with stepping down, nay throwing yourself down, from your own fortune. In which intricate case, finding no end of this former course, and therefore desirous to find the beginning of a new, you have not whither to resort, but unto the oracle of her Majesty's direction. For though the true introduction *ad tempora meliora* be by an *amnestia* of that which is past, except it be in the sense, that the verse speaketh, *Olim hæc meminisse juvabit*, when tempests past are remembered in the calm; and that you do not doubt of her Majesty's goodness in pardoning and obliterating any of your errors and mistakings heretofore; refreshing the memory and contemplations of your poor services, or any thing that hath been grateful to her Majesty from you; yea, and somewhat of your sufferings, so though that be, yet you may be to seek for the time to come. For as you have determined your hope in a good hour, not willingly to offend her Majesty, either in matter of court or state, but to depend absolutely upon her will and pleasure; so you do more doubt and mistrust your wit and insight in finding her Majesty's mind, than your conformities and submission in obeying it; the rather, because you cannot but nourish a doubt in your breast, that her Majesty, as princes' hearts are inscrutable, hath many times towards you *aliud in ore et aliud in corde*. So that you, that take her *secundum literam*, go many times farther out of your way.

Therefore your most humble suit to her Majesty is, that she will vouchsafe you that approach to her heart and bosom, *et ad scrinium pectoris*, plainly, for as much as concerneth yourself, to open and expound her mind towards you, suffering you to see clear what may have bred any dislike in her Majesty; and in what points she would have you reform yourself; and how she would be served by you. Which done, you do assure her Majesty, she shall be both at the beginning and the ending of all, that you do, of that regard, as you may presume to impart to her Majesty.

And so that hoping, that this may be an occasion of some farther serenity from her Majesty towards you, you refer the rest to your actions, which may verify what you have written; as that you have written may interpret your actions, and the course you shall hereafter take.

Indorsed by Mr. Francis Bacon,

A letter framed for my lord of Essex to the queen.

TO MR. SECRETARY CECIL.*

IT MAY PLEASE YOUR HONOUR,

BECAUSE we live in an age, where every man's imperfection is but another's fable; and that there fell out an accident in the exchequer, which I know not how, nor how soon may be traduced, though I dare trust rumour in it, except it be malicious, or extreme partial; I am bold now to possess your honour, as one, that ever I found careful of my advancement, and yet more jealous of my wrongs, with the truth of that which passed; deferring my farther request, until I may attend your honour: and so I continue

Your honour's very humble and particularly bounden,

FR. BACON.

Gray's-Inn, this 24th of April, 1601.

A true remembrance of the abuse I received of Mr. Attorney-General† publicly in the exchequer the first day of term; for the truth whereof I refer myself to all that were present.

I MOVED to have a seizure of the lands of George More, a relapsed recusant, a fugitive, and a practising traitor; and showed better matter for the queen against the discharge by plea, which is ever with a *salvo jure*. And this I did in as gentle and reasonable terms as might be.

Mr. Attorney kindled at it, and said, "Mr. Bacon, if you have any tooth against me, pluck it out; for it will do you more hurt than all the teeth in your head will do you good." I answered coldly in these very words: "Mr. Attorney, I respect you: I fear you not: and the less you speak of your own greatness, the more I will think of it."

* From the Hatfield collection.

† Edward Coke, knighted by king James at Greenwich in 1603; and made lord chief justice of the common pleas 30 June, 1606.

He replied, "I think scorn to stand upon terms of greatness towards you, who are less than little; less than the least:" and other such strange light terms he gave me, with that insulting, which cannot be expressed.

Herewith stirred, yet I said no more but this: "Mr. Attorney, do not depress me so far; for I have been your better, and may be again, when it please the queen."

With this he spake, neither I nor himself could tell what, as if he had been born attorney-general; and in the end bade me not meddle with the queen's business, but with mine own; and that I was unsworn, &c. I told him, sworn or unsworn was all one to an honest man; and that I ever set my service first, and myself second; and wished to God, that he would do the like.

Then he said, it were good to clap a *cap. utlegatum* upon my back! To which I only said he could not; and that he was at a fault; for he hunted upon an old scent.

He gave me a number of disgraceful words besides; which I answered with silence, and showing that I was not moved with them.

TO ROBERT, LORD CECIL.*

IT MAY PLEASE YOUR GOOD LORDSHIP,

THEY say late thanks are ever best. But the reason was, I thought to have seen your lordship ere this. Howsoever I shall never forget this your last favour amongst others; and it grieveth me not a little, that I find myself of no use to such an honourable and kind friend.

For that matter, I think I shall desire your assistance for the punishment of the contempt; not that I would use the privilege in future time, but because I would not have the dignity of the king's service prejudiced in my instance. But herein I will be ruled by your lordship.

It is fit likewise, though much against my mind, that I let your lordship know, that I shall not be able to pay the money within the time by your lordship undertaken, which was a fortnight. Nay, money I find so hard to come by at this time, as I thought to have become an humble suitor to your honour to have sustained me with your credit for the present from urgent debts with taking up 300*l.* till I can put away some land. But I am so forward with some sales, as this request, I hope, I may forbear.

For my estate, because your honour hath care of it, it is thus: I shall be able, with selling the skirts of my living in Hertfordshire,† to preserve the body; and to leave myself, being clearly out of debt, and having some money in my pocket, 300*l.* land *per annum*, with a fair house, and the ground well timbered. This is now my labour.

For my purpose or course, I desire to meddle as little as I can in the king's causes, his Majesty now abounding in council; and to follow my private thrift and practice, and to marry with some convenient advancement. For as for any ambition, I do assure your honour, mine is quenched. In the queen's, my excellent mistress's, time, the *quorum* was small: her service was a kind of freehold, and it was a more solemn time. All those points agreed with my nature and judgment. My ambition now I shall only put upon my pen, whereby I shall be able to maintain memory and merit of the times succeeding.

Lastly, for this divulged and almost prostituted title of knighthood, I could without charge, by your honour's mean, be content to have it, both because of this late disgrace, and because I have three new knights in my mess in Gray's-Inn commons; and because I have found out an alderman's daughter,‡ a handsome maiden, to my liking. So as if your honour will find the time, I will come to the court from Gorhambury, upon any warning.

How my sales go forward, your lordship shall in a few days hear. Meanwhile, if you will not be pleased to take farther day with this lewd fellow, I hope your lordship will not suffer him to take any part of the penalty, but principal, interest, and costs.

So I remain your lordship's most bounden,

FR. BACON.

3 July, 1603.

TO THE SAME.

IT MAY PLEASE YOUR GOOD LORDSHIP,

IN answer of your last letter, your money shall be ready before your day, principal, interest, and costs of suit. So the sheriff promised when I released errors; and a Jew takes no more. The rest cannot be forgotten; for I cannot forget your lordship's *dum memor ipse mei;* and if there have been *aliquid nimis*, it shall be amended. And, to be plain with your lordship, that will quicken me now which slackened me before. Then I thought you might have had more use of me than now, I suppose, you are like to have. Not but I think the impediment will be rather in my mind than in the matter or times. But to do you service, I will come out of my religion at any time.

For my knighthood,§ I wish the manner might be such as might grace me, since the matter will not; I mean, that I might not be merely gregarious in a troop. The coronation‖ is at hand. It may please your lordship to let me hear from you speedily. So I continue

Your lordship's ever much bounden,

FR. BACON.

From Gorhambury, this 16th of July, 1603.

* From the Hatfield collection.

† Gorhambury.

‡ Probably the lady whom he afterwards married, Alice, one of the daughters and coheirs of Benedict Barnham, Esq. alderman of London. She survived her husband above twenty years. *Life of Lord Bacon, by Dr. William Rawley.*

§ He was knighted at Whitehall, 23 July, 1603.

‖ It was solemnized, 24 July, 1603.

TO SIR JOHN DAVIS, HIS MAJESTY'S ATTORNEY-GENERAL IN IRELAND.*

Mr. Attorney,

I THANK you for your letter, and the discourse you sent of this new accident, as things then appeared. I see manifestly the beginning of better or worse: but methinketh it is first a tender of the better, and worse followeth but upon refusal or default. I would have been glad to see you here; but I hope occasion reserveth our meeting for a vacation, when we may have more fruit of conference: To requite your proclamation, which, in my judgment, is wisely and seriously penned, I send you another with us, which happened to be in my hands when yours came. I would be glad to hear often from you, and to be advertised how things pass, whereby to have some occasion to think some good thoughts; though I can do little. At the least it will be a continuance in exercise of our friendship, which on my part remaineth increased by that I hear of your service, and the good respects I find towards myself. And so in Tormour's haste, I continue

Your very loving friend,

FR. BACON.

From Gray's-Inn, this 23d of Octob. 1607.

TO ISAAC CASAUBON.†

Cum ex literis, quas ad dominum Carew misisti, cognoscam scripta mea a te probari, et mihi de judicio tuo gratulatus sum, et tibi, quam ea res mihi fuerit voluptati, scribendum existimavi. Atque illud etiam de me recte augurariis, me scientias ex latebris in lucem extrahere vehementer cupere. Neque enim multum interest ea per otium scribi, quæ per otium legantur, sed plane vitam, et res humanas, et medias earum turbas, per contemplationes sanas et veras instructiores esse volo. Quanta autem in hoc genere aggrediar, et quam parvis præsidiis, postmodum fortasse rescisces. Etiam tu pariter gratissimum mihi facies, si quæ in animo habes atque moliris et agitas, mihi nota esse velis. Nam conjunctionem animorum et studiorum plus facere ad amicitias judico, quam civilis necessitatis et occasionum officia. Equidem existimo neminem unquam magis vere potuisse dicere de sese, quam me ipsum, illud quod habet psalmus, *multum incola fuit anima mea.* Itaque magis videor cum antiquis versari, quam cum his, quibuscum vivo. Quid ni etiam possim cum absentibus potius versari, quam cum iis, qui præsto sunt; et magis electione in amicitiis uti, quam occasionibus de more submitti? Verum ad institutum revertor ego; si quæ in re amicitia mea tibi aut tuis usui aut ornamento esse possit, tibi operam meam bonam atque navam polliceor. Itaque salutem tibi dicit

Amicus tuus, &c.

Indorsed,
To Casaubon.

The beginning of a Letter immediately after my Lord Treasurer's‡ decease.§

May 29, 1612.

It may please your Majesty,

If I shall seem in these few lines to write *majora quam pro fortuna*, it may please your Majesty to take it to be an effect, not of presumption, but of affection. For of the one I was never noted; and for the other I could never show it hitherto to the full; being as a hawk tied to another's fist, that might sometimes bait and proffer, but could never fly. And therefore if, as it was said to one that spoke great words, *Amice, verba tua desiderant civitatem,*‖ so your Majesty say to me, "Bacon, your words require a place to speak them;" I must answer, that place, or not place, is in your Majesty to add or refrain: and though I never grow eager but to • • • • • • yet your Majesty ———

TO THE KING,

Immediately after the Lord Treasurer's death.

31 May, 1612.

It may please your excellent Majesty,

I cannot but endeavour to merit, considering your preventing graces, which is the occasion of these few lines.

Your Majesty hath lost a great subject and a great servant. But if I should praise him in propriety, I should say, that he was a fit man to keep things from growing worse; but no very fit man to redress things to be much better. For he loved to have the eyes of all Israel a little too much on himself, and to have all business still under the hammer; and, like clay in the hands of the potter, to mould it as he thought good; so that he was more *in operatione* than *in opere*. And though he had fine passages of action, yet the real conclusions came slowly on. So that although your Majesty hath grave counsellors and worthy persons left; yet you do, as it were, turn a leaf, wherein if your Majesty shall give a frame and constitution to matters, before you place the persons, in my simple opinion it were not amiss. But the great matter, and most instant for the present, is the consideration of a parliament, for two effects; the one for the supply of your estate; the other for the better knitting of the

* From the MS. Collections of Robert Stephens, Esq. deceased.

† This letter appears to have been written after Sir George Carew, mentioned in it, returned from his embassy in France, in October, 1609; and before the arrival of Casaubon in England, in October, 1610.

‡ Robert earl of Salisbury, who died 24 May, 1612.

§ The draught of this imperfect letter is written chiefly in Greek characters.

‖ These words of Themistocles are cited likewise by lord Bacon, at the end of his book *De Augmentis Scientiarum.*

hearts of your subjects unto your Majesty, according to your infinite merit; for both which, parliaments have been, and are, the ancient and honourable remedy.

Now because I take myself to have a little skill in that region, as one that ever affected, that your Majesty might, in all your causes, not only prevail, but prevail with satisfaction of the inner man; and though no man can say but I was a perfect and peremptory royalist, yet every man makes me believe that I was never one hour out of credit with the lower house; my desire is to know, whether your Majesty will give me leave to meditate and propound unto you some preparative remembrances, touching the future parliament.

Your Majesty may truly perceive, that, though I cannot challenge to myself either invention, or judgment, or elocution, or method, or any of those powers; yet my offering is care and observance: and as my good old mistress was wont to call me her watch-candle, because it pleased her to say, I did continually burn, and yet she suffered me to waste almost to nothing; so I must much more owe the like duty to your Majesty, by whom my fortunes have been settled and raised. And so craving pardon, I rest

Your Majesty's most humble servant devote,
F. B.

TO THE KING.

It may please your excellent Majesty,

My principal end being to do your Majesty service, I crave leave to make at this time to your Majesty this most humble oblation of myself. I may truly say with the psalm, *Multum incola fuit anima mea;* for my life hath been conversant in things, wherein I take little pleasure. Your Majesty may have heard somewhat, that my father was an honest man; and somewhat yet I may have been of myself, though not to make any true judgment by, because I have hitherto had only *potestatem verborum*, nor that neither. I was three of my young years bred with an ambassador * in France, and since I have been an old truant in the schoolhouse of your council chamber, though on the second form; yet longer than any, that now sitteth, hath been in the head form. If your Majesty find any aptness in me, or if you find any scarcity in others, whereby you may think it fit for your service to remove me to business of state, although I have a fair way before me for profit, and, by your Majesty's grace and favour, for honour and advancement, and in a course less exposed to the blast of fortune; yet now that he † is gone, *quo vivente virtutibus certissimum exitium*, I will be ready as a chessman to be wherever your Majesty's royal hand shall set me. Your Majesty will bear me witness, I have not suddenly opened myself thus far. I have looked on upon others. I see the exceptions; I see the distractions; and I fear Tacitus will be a prophet, *magis alii homines, quam alii mores*. I know mine own heart; and I know not whether God, that hath touched my heart with the affection, may not touch your royal heart to discern it. Howsoever, I shall go on honestly in mine ordinary course, and supply the rest in prayers for you, remaining, &c.

* Sir Amias Poulet, who was sent ambassador to France, in September, 1576. He was succeeded by Sir Edward Stafford, in December, 1578.

† Lord Treasurer Salisbury.

TO THE KING.‡

* * * Lastly, I will make two prayers unto your Majesty, as I used to do to God Almighty, when I commend to him his own glory and cause; so I will pray to your Majesty for yourself.

The one is, that these cogitations of want do not any ways trouble or vex your mind. I remember Moses saith of the land of promise, that it was not like the land of Egypt, that was watered with a river, but was watered with showers from heaven; whereby I gather, God preferreth sometimes uncertainties before certainties, because they teach a more immediate dependence upon his providence. Sure I am, *nil novi accidit vobis*. It is no new thing for the greatest kings to be in debt; and, if a man shall *parvis componere magna*, I have seen an earl of Leicester, a chancellor Hatton, an earl of Essex, and an earl of Salisbury in debt; and yet was it no manner of diminution to their power or greatness.

My second prayer is, that your Majesty, in respect of the hasty freeing of your state, would not descend to any means, or degree of means, which carrieth not a symmetry with your majesty and greatness. He is gone, from whom those courses did wholly flow. So have your wants and necessities in particular, as it were, hanged up in two tablets before the eyes of your lords and commons to be talked of for four months together: to have all your courses to help yourself in revenue or profit put into printed books, which were wont to be held *arcana imperii*: to have such worms of aldermen to lend for ten in the hundred upon good assurance, and with such * *, as if it should save the bark of your fortune: to contract still where might be had the readiest payment, and not the best bargain: to stir a number of projects for your profit, and then to blast them, and leave your Majesty nothing but the scandal of them: to pretend an even carriage between your Majesty's rights and the ease of the people, and to satisfy neither. These courses and others the like, I hope, are gone with the deviser of them; which have turned your Majesty to inestimable prejudice.§

I hope your Majesty will pardon my liberty of

‡ The beginning of this letter is wanting.

§ It will be but justice to the memory of the earl of Salisbury to remark, that this disadvantageous character of him by Sir Francis Bacon seems to have been heightened by the prejudices of the latter against that able minister, grounded upon some suspicions, that the earl had not served him with so much zeal, as he might have expected from so near a relation, either in queen Elizabeth's reign, or that of her successor. Nor is it any just imputation on his lordship, that he began to decline in king James I.'s good opinion, when his Majesty's ill economy occasioned demands on the lord treasurer, which all his skill in the business of the finances could not answer,

writing. I know these things are *majora quam pra fortuna:* but they are *minora quam pra studio et voluntate.* I assure myself, your Majesty taketh not me for one of a busy nature; for my state being free from all difficulties, and I having such a large field for contemplations, as I have partly, and shall much more make manifest to your Majesty and the world, to occupy my thoughts, nothing could make me active but love and affection. So praying my God to bless and favour your person and estate, &c.

TO THE KING.

IT MAY PLEASE YOUR EXCELLENT MAJESTY,

I HAVE, with all possible diligence since your Majesty's progress, attended the service committed to the sub-commissioners, touching the repair and improvement of your Majesty's means: and this I have done, not only in meeting, and conference, and debate with the rest; but also by my several and private meditation and inquiry. So that, besides joint account, which we shall give to the lords, I hope I shall be able to give your Majesty somewhat *ex proprio.* For as no man loveth better *consulere in commune* than I do; neither am I of those fine ones, that use to keep back any thing, wherein they think they may win credit apart, and so make the consultation almost *inutile.* So nevertheless, in cases, where matters shall fall in upon the bye, perhaps of no less worth than that, which is the proper subject of the consultation; or where I find things passed over too slightly, or in cases where that, which I should advise, is of that nature, as I hold it not fit to be communicated to all those with whom I am joined; these parts of business I put to my private account; not because I would be officious, (though I profess I would do works of supererogation, if I could,) but in a true discretion and caution. And your Majesty had some taste in those notes, which I gave you for the wards, (which it pleased you to say were no tricks nor novelties, but true passages of business,) that mine own particular remembrances and observations are not like to be unprofitable. Concerning which notes for the wards, though I might say, *sic vos non vobis;* yet let that pass.

I have also considered fully of that great proposition, which your Majesty commended to my care and study, touching the conversion of your revenue of land into a multiplied present revenue of rent: wherein I say, I have considered of the means and course to be taken, of the assurance, of the rates, of the exceptions, and of the arguments for and against it. For though the project itself be as old as I can remember, and falleth under every man's capacity; yet the dispute and manage of it asketh a great deal of consideration and judgment; projects being like Æsop's tongues, the best meat and the worst, as they are chosen and handled. But surely, *ubi deficiunt remedia ordinaria, recurrendum est ad extraordinaria.* Of this also I am ready to give your Majesty an account.

Generally upon this subject of the repair of your Majesty's means, I beseech your Majesty to give me leave to make this judgment, that your Majesty's recovery must be by the medicines of the Galenists and Arabians, and not of the Chemists or Paracelsians. For it will not be wrought by any one fine extract, or strong water; but by a skilful company of a number of ingredients, and those by just weight and proportion, and that of some simples, which perhaps of themselves, or in over-great quantity, were little better than poisons; but mixed, and broken, and in just quantity, are full of virtue. And secondly, that as your Majesty's growing behind-hand hath been work of time; so must likewise be your Majesty's coming forth and making even. Not but I wish it were by all good and fit means accelerated; but that I foresee, that if your Majesty shall propound to yourself to do it *per saltum*, it can hardly be without accidents of prejudice to your honour, safety, or profit.

Indorsed,

My letter to the KING, *touching his estate in general, September 18th*, 1612.

IN HENRICUM PRINCIPEM WALLIÆ ELOGIUM FRANCISCI BACONI.*

HENRICUS primogenitus regis Magnæ Britanniæ, princeps Walliæ, antea spe beatus, nunc memoria felix, diem suum obiit 6 Novemb. anno 1612. Is magno totius regni luctu et desiderio extinctus est, utpote adolescens, qui animos hominum nec offendisset nec satiasset. Excitaverat autem propter bonam indolem multiplices apud plurimos omnium ordinum spes, nec ob brevitatem vitæ frustraverat. Illud imprimis accessit, quod in causa religionis firmus vulgo habebatur: prudentioribus quoque hoc animo penitus insederat, adversus insidias conjurationum, cui malo ætas nostra vix remedium reperit, patri eum instar præsidii et scuti fuisse, adeo ut et religionis et regis apud populum amor in eum redundaret, et in æstimationem jacturæ merito annumeraretur. Erat corpore validus et erectus, statura mediocri, decora membrorum compage, incessu regio, facie oblonga et in maciem inclinante, habitu plenior, vultu composito, oculorum motu magis sedato quam forti. Inerant quoque et in fronte severitatis signa, et in ore nonnihil fastus. Sed tamen si quis ultra exteriora illa penetraverat, et eam obsequi debito et sermone tempestivo deliniverat, utebatur eo benigno et facili, ut alius longe videretur colloquio quam aspectu, talisque prorsus erat, qui famam sui excitaret moribus dissimilem. Laudis et gloriæ fuit procul dubio appetens, et ad omnem speciem boni

but which drew from him devices and remonstrances still extant, which that king, not being very ready to profit by, conceived some resentment against his old servant, and even retained it against his memory.

* Harl MSS. Vol. 1893. fol. 75. It seems to me no improbable supposition, that this character was intended to be sent to Thuanus, in order to be inserted in his excellent history, if he should have continued it to the year 1612, whereas it reached only to 1607.

et auram decoris commovebatur; quod adolescenti pro virtutibus est. Nam et arma ei in honore erant ac viri militares; quin et ipse quiddam bellicum spirabat; et magnificentiæ operum, licet pecuniæ alioquin satis parcus, deditus erat: amator insuper antiquitatis et artium. Literis quoque plus honoris attribuit quam temporis. In moribus ejus nihil laudandum magis fuit, quam quod in omni genere officiorum probe institutus eredebatur et congruus: filius regi patri mire obsequens, etiam reginam multo cultu demerebat, erga fratrem indulgens; sororem vero unice amabat, quam etiam, quantum potuit virilis forma ad eximiam virginalem pulchritudinem collata, referebat. Etiam magistri et educatores pueritiæ ejus, quod raro fieri solet, magna in gratia apud eum manserant. Sermone vero obsequii idem exactor et memor. Denique in quotidiano vitæ genere, et assignatione horarum ad singula vitæ munera, magis quam pro ætate constans atque ordinatus. Affectus ei inerant non nimium vehementes, et potius æquales quam magni. Etenim de rebus amatoriis mirum in illa ætate silentium, ut prorsus lubricum illud adolescentiæ suæ tempus in tanta fortuna, et valetudine satis prospera, absque aliqua insigni nota amorum transigeret. Nemo repcriebatur in aula ejus apud eum præpotens, aut in animo ejus validus: quin et studia ipsa, quibus capiebatur maxime, potius tempora patiebantur quam exeessus, et magis repetita erant per vices, quam quod extaret aliquod unum, quod reliqua superaret et compeseeret, sive ea moderatio fuit, sive in natura non admodum præcoci, sed lente maturescente, non eernebantur adhuc quæ prævalitura erant. Ingenio eerte pollebat, eratque et curiosus satis et capax, sed sermone tardior et tanquam impeditus: tamen si quis diligenter observaveræt ea, quæ ab eo proferebantur, sive quæstionis vim obtinebant, sive sententiæ, ad rem omnino erant, et eaptum non vulgarem arguebant; ut in illa loquendi tarditate et raritate judieium ejus magis suspensum videretur et anxium, quam infirmum aut hebes. Interim audiendi miris modis patiens, etiam in negotiis, quæ in longitudinem porrigebantur; idque cum attentione et sine tædio, ut raro animo peregrinaretur aut fessa mente aliquid ageret, sed ad ea, quæ dicebantur, aut agebantur, animum adverteret atque applicaret; quod magnam ei, si vita suppetiisset, prudentiam spondebat. Certe in illius principis natura plurima erant obscura, neque judicio eujuspiam patefneienda, sed tempore, quod ei præreptum est. Attamen quæ apparebant, optima erant, quod famæ satis est. Mortuus est ætatis suæ anno decimo nono ex febri eontumaci, quæ ubique a magnis et insulanis fere insolitis siecitatibus ac fervoribus orta per æstatem populariter grassabatur, sed raro funere; dein sub autumnum erat facta lethalior. Addidit fama atrocior, ut ille * ait, erga dominantium exitus suspicionem veneni. Sed eum nulla ejus rei extarent indicia, præsertim in ventrieulo, quod præcipue a veneno pati solet, is sermo cito evanuit.

* Tacit. Annal. l. iv. 11.

The following translation is an attempt, for the sake of the English reader, to give the sense of the original, without pretending to reach the force and conciseness of expression peculiar to the great writer as well as to the Roman language.

Henry Prince of Wales, eldest son of the king of Great Britain, happy in the hopes conceived of him, and now happy in his memory, died on the 6th of Nov. 1612, to the extreme concern and regret of the whole kingdom, being a youth, who had neither offended nor satiated the minds of men. He had by the excellence of his disposition excited high expectations among great numbers of all ranks; nor had through the shortness of his life disappointed them. One capital circumstanee added to these was the esteem, in which he was commonly held, of being firm to the eause of religion: and men of the best judgment were fully persuaded, that his life was a great support and security to his father from the danger of conspiracies; an evil, against which our age has scarce found a remedy; so that the people's love of religion and the king overflowed to the prinee: and this consideration deservedly heightened the sense of the loss of him. His person was strong and erect; his stature of a middle size; his limbs well made; his gait and deportment majestic; his face long and inclining to leanness; his habit of body full; his look grave, and the motion of his eyes rather eomposed than spirited. In his countenance were some marks of severity, and in his air some appearance of haughtiness. But whoever looked beyond these outward circumstances, and addressed and softened him with a due respect and seasonable discourse, found the prinee to be gracious and easy; so that he seemed wholly different in conversation from what he was in appearanee, and in fact raised in others an opinion of himself very unlike what his manner would at first have suggested. He was unquestionably ambitious of eommendation and glory, and was strongly affected by every appearance of what is good and honourable; which in a young man is to be considered as virtue. Arms and military men were highly valued by him; and he breathed himself something warlike. He was much devoted to the magnificence of buildings and works of all kinds, though in other respects rather frugal; and was a lover both of antiquity and arts. He showed his esteem of learning in general more by the countenanee which he gave to it, than by the time which he spent in it. His eonduct in respeet of morals did him the utmost honour; for he was thought exaet in the knowledge and practice of every duty. His obedience to the king his father was wonderfully strict and exemplary: towards the queen he behaved with the highest reverenee: to his brother he was indulgent; and had an entire affection for his sister, whom he resembled in person as much as that of a young man could the beauty of a virgin. The instructors of his younger years (which rarely happens) continued high in his favour. In conversation he both expected a proper decorum, and praetised it. In the daily business of life, and the allotment of hours for the several offices of it, he

was more constant and regular than is usual at his age. His affections and passions were not strong, but rather equal than warm. With regard to that of love, there was a wonderful silence, considering his age, so that he passed that dangerous time of his youth, in the highest fortune, and in a vigorous state of health, without any remarkable imputation of gallantry. In his court no person was observed to have any ascendant over him, or strong interest with him: and even the studies, with which he was most delighted, had rather proper times assigned them, than were indulged to excess, and were rather repeated in their turns, than that any one kind of them had the preference of, and controlled the rest: whether this arose from the moderation of his temper, and that in a genius not very forward, but ripening by slow degrees, it did not yet appear what would be the prevailing object of his inclination. He had certainly strong parts, and was endued with both curiosity and capacity; but in speech he was slow, and in some measure hesitating. But whoever diligently observed what fell from him either by way of question or remark, saw it to be full to the purpose, and expressive of no common genius. So that under that slowness and infrequency of discourse, his judgment had more the appearance of suspense and solicitude to determine rightly, than of weakness and want of apprehension. In the mean time he was wonderfully patient in hearing, even in business of the greatest length; and this with unwearied attention, so that his mind seldom wandered from the subject, or seemed fatigued, but he applied himself wholly to what was said or done: which (if his life had been lengthened) promised a very superior degree of prudence. There were indeed in the prince some things obscure, and not to be discovered by the sagacity of any person, but by time only, which was denied him; but what appeared were excellent, which is sufficient for his fame.

He died in the 19th year of his age of an obstinate fever, which during the summer, through the excessive heat and dryness of the season, unusual to islands, had been epidemical, though not fatal, but in autumn became more mortal. Fame, which, as Tacitus says, is more tragical with respect to the deaths of princes, added a suspicion of poison: but as no signs of this appeared, especially in his stomach, which uses to be chiefly affected by poison, this report soon vanished.

TO THE KING.

MAY IT PLEASE YOUR MAJESTY,

ACCORDING to your highness's pleasure signified by my lord chamberlain,* I have considered of the petition of certain baronets † made unto your Majesty for confirmation and extent or explanation of certain points mentioned in their charter; and am of opinion, that first, whereas it is desired, that the baronets be declared a middle degree between baron and knight, I hold this to be reasonable as to their placing.

Secondly, where it is desired, that unto the words *degree or dignity of baron*, the word *honour* might be added: I know very well, that in the preface of the baronet's patent it is mentioned, that all honours are derived from the king. I find also, that in the patent of the baronets, which are marshalled under the barons, except it be certain principals, the word *honour* is granted. I find also, that the word *dignity* is many times in law a superior word to the word *honour*, as being applied to the king himself, all capital indictments concluding *contra coronam et dignitatem nostram*. It is evident also, that the words *honour* and *honourable* are used in these times in common speech very promiscuously. Nevertheless, because the style of honour belongs chiefly to peers and counsellors, I am doubtful what opinion to give therein.

Thirdly, whereas it is believed, that if there be any question of precedence touching baronets, it may be ordered that the same be decided by the commissioners marshal, I do not see but it may be granted them for avoiding disturbances.

Fourthly, for the precedence of baronets, I find no alteration or difficulty, except it be in this, that the daughters of baronets are desired to be declared to have precedence before the wives of knights' eldest sons; which, because it is a degree hereditary, and that in all examples, the daughters in general have place next the eldest brothers' wives, I hold convenient.

Lastly, whereas it is desired, that the apparent heirs males of the bodies of the baronets may be knighted during the life of their fathers; for that I have received from the lord chamberlain a signification, that your Majesty did so understand it, I humbly subscribe thereunto, with this, that the baronets' eldest sons being knights do not take place of ancient knights, so long as their fathers live.

All which nevertheless I humbly submit to your Majesty's better judgment.

Your Majesty's most humble and most bounden servant,

FR. BACON.

THE CHARGE AGAINST MR. WHITELOCKE.‡

MY LORDS,

THE offence, wherewith Mr. Whitelocke is

* Thomas Howard, earl of Suffolk.

† The order of baronets was created by patent of king James I. dated the 22d of May, 1611. The year following, a decree was made relating to their place and precedence, and four years after, namely, in 1616, another decree to the same purpose. See Selden's *Titles of Honour*, Part II. Ch. V. p. 821. Ch. XI. p. 906, and 910. 2d Edit. fol. 1631.

‡ He had been committed, in May 1613, to the Fleet, for speaking too boldly against the marshal's court, and for giving his opinion to Sir Robert Mansell, treasurer of the navy and vice-admiral, that the commission to the earl of Nottingham, lord high admiral, for reviewing and reforming the disorders committed by the officers of the navy, was not according to law; though Mr. Whitelocke had given that opinion only in private to his client, and not under his hand. Sir Robert Mansell was also committed to the Marshalsea, for animating the lord admiral against the commission. [Sir Ralph Winwood's *Memorials of State*, vol. iii. p. 460.] This Mr. Whitelocke

charged, for as to Sir Robert Mansell, I take it to my part only to be sorry for his error, is a contempt of a high nature, and resting upon two parts: on the one, a presumptuous and licentious censure and defying of his Majesty's prerogative in general; the other, a slander and traducement of one act or emanation hereof, containing a commission of survey and reformation of abuses in the office of the navy.

This offence is fit be opened and set before your lordships, as it hath been well begun, both in the true state and in the true weight of it. For as I desire, that the nature of the offence may appear in its true colours; so, on the other side, I desire, that the shadow of it may not darken or involve any thing that is lawful, or agreeable with the just and reasonable liberty of the subject.

First, we must and do agree, that the asking, and taking, and giving of counsel in law is an essential part of justice; and to deny that, is to shut the gate of justice, which in the Hebrews' commonwealth was therefore held in the gate, to show all passage to justice must be open: and certainly counsel in law is one of the passages. But yet, for all that, this liberty is not infinite and without limits.

If a jesuited papist should come, and ask counsel (I put a case not altogether feigned) whether all the acts of parliament made in the time of queen Elizabeth and king James are void or no; because there are no lawful bishops sitting in the upper house, and a parliament must consist of lords spiritual and temporal and commons; and a lawyer will set it under his hand, that they be all void, I will touch him for high treason upon this his counsel.

So, if a puritan preacher will ask counsel, whether he may style the king Defender of the Faith, because he receives not the discipline and presbytery; and the lawyer will tell him, it is no part of the king's style, it will go hard with such a lawyer.

Or if a tribunitious popular spirit will go and ask a lawyer, whether the oath and band of allegiance be to the kingdom and crown only, and not to the king, as was Hugh Spencer's case, and he deliver his opinion as Hugh Spencer did; he will be in Hugh Spencer's danger.

So as the privilege of giving counsel proveth not all opinions: and as some opinions given are traitorous; so are there others of a much inferior nature, which are contemptuous. And among these I reckon Mr. Whitelocke's; for as for his loyalty and true heart to the king, God forbid I should doubt it.

Therefore let no man mistake so far, as to conceive, that any lawful and due liberty of the subject for asking counsel in law is called in question when points of disloyalty or of contempt are restrained. Nay, we see it is the grace and favour of the king and his courts, that if the case be tender, and a wise lawyer in modesty and discretion refuseth to be of counsel, for you have lawyers sometimes too nice as well as too bold, they are then ruled and assigned to be of counsel. For certainly counsel is the blind man's guide; and sorry I am with all my heart, that in this case the blind did lead the blind.

For the offence, for which Mr. Whitelocke is charged, I hold it great, and to have, as I said at first, two parts: the one a censure, and, as much as in him is, a circling, nay a clipping, of the king's prerogative in general; the other, a slander, and depravation of the king's power and honour in this commission.

And for the first of these, I consider it again in three degrees: first, that he presumed to censure the king's prerogative at all. Secondly, that he runneth into the generality of it more than was pertinent to the present question. And lastly, that he hath erroneously, and falsely, and dangerously given opinion in derogation of it.

First, I make a great difference between the king's grants and ordinary commissions of justice, and the king's high commissions of regiment, or mixed with causes of state.

For the former, there is no doubt but they may be freely questioned and disputed, and any defect in matter or form stood upon, though the king be many times the adverse party:

But for the latter sort, they are rather to be dealt with, if at all, by a modest and humble intimation or remonstrance to his Majesty and his council, than by bravery of dispute or peremptory opposition.

Of this kind is that properly to be understood, which is said in Bracton, "De chartis et factis regiis non debent aut possunt justitiarii aut privatæ personæ disputare, sed tutius est, ut expectetur sententia regis."

And the king's courts themselves have been exceeding tender and sparing in it; so that there is in all our law not three cases of it. And in that very case of 24 Ed. 3. ass. pl. 8. which Mr. Whitelocke vouched, where, as it was a commission to arrest a man, and to carry him to prison, and to seize his goods without any form of justice or examination preceding; and that the judges saw it was obtained by surreption; yet the judges said they would keep it by them, and show it to the king's council.

But Mr. Whitelocke did not advise his client to acquaint the king's council with it, but presumptuously giveth opinion, that it is void. Nay, not so much as a clause or passage of modesty, as that he submits his opinion to censure; that it is too great a matter for him to deal in; or this is my opinion, which is nothing, &c. But *illotis manibus*, he takes it into his hands, and pronounceth of it, as a man would scarcely do of a warrant of a justice of peace, and speaks like a dictator, that *this is law*, and *this is against law*, &c.*

was probably the same with James Whitelocke, who was born in London, 28th November, 1572, educated at Merchant-taylors' school there, and St. John's college in Oxford, and studied law in the Middle Temple, of which he was summer reader in 1619. In the preceding year, 1618, he stood for the place of recorder of the city of London, but was not elected to it. Robert Heath, Esq. being chosen on the 10th of November, chiefly by the recommendation of the king, the city having been told, that they must choose none, whom his Majesty should refuse, as he did in particular except to Mr. Whitelocke by name. [MS. letter of Mr. Chamberlain to Sir Dudley Carleton, November 14, 1618.] Mr. Whitelocke, however, was called to the degree of serjeant in Trinity-term, 1620, knighted, made chief justice of Chester; and at last, on the 18th of October, 1624, one of the justices of the king's bench; in which post he died June, 1632. He was father of Bulstrode Whitelocke, Esq. commissioner of the great seal.

* Sir H. Wotton, in a letter of his to Sir Edmund Bacon,

ROBERT EARL OF SOMERSET TO SIR THOMAS OVERBURY.* FROM A COPY AMONG LORD BACON'S PAPERS IN THE LAMBETH LIBRARY.

Sir,

I have considered that my answer to you, and what I have otherwise to say, will exceed the bounds of a letter; and now having not much time to use betwixt my waiting on the king, and the removes we do make in this our little progress, I thought fit to use the same man to you, whom I have heretofore many times employed in the same business. He has, besides an account and a better description of me to give you, to make a repetition of the former carriages of all this business, that you may distinguish that, which he did by knowledge of mine and direction, and betwixt that he did out of his own discretion without my warrant. With all this he has to renew to you a former desire of mine, which was the groundwork of this, and the chief errand of his coming to you, wherein I desire your answer by him. I would not employ this gentleman to you, if he were, as you conceit of him, your unfriend, or an ill instrument betwixt us. So owe him the testimony of one, that has spoken as honestly, and given more praises of you, than any man, that has spoken to me.

My haste at this time makes me to end sooner than I expected: but the subject of my next sending shall be to answer that part you give me in your love, with a return of the same from

Your assured loving Friend,

R. SOMERSET.

Indorsed,

Lord Somerset's first letter.

TO THE KING.

It may please your most excellent Majesty,

Having understood of the death of the lord chief justice,† I do ground in all humbleness an assured hope, that your Majesty will not think of any other but your poor servants, your attorney,‡ and your solicitor,§ one of them, for that place. Else we shall be like Noah's dove, not knowing where to rest our feet. For the places of rest, after the extreme painful places, wherein we serve, have used to be either the lord chancellor's place, or the mastership of the rolls, or the places of the chief justices: whereof, for the first, I could be almost loth to live to see this worthy counsellor fail. The mastership of the rolls is blocked with a reversion.‖ My lord Coke is like to out-live us both. So as if this turn fail, I for my part know not whither to look. I have served your Majesty above a prenticehood, full seven years and more, as your solicitor, which is, I think, one of the painfullest places in your kingdom, specially as my employments have been; and God hath brought mine own years to fifty-two, which I think is older than ever any solicitor continued unpreferred. My suit is principally, that you would remove Mr. Attorney to the place. If he refuse, then I hope your Majesty will seek no farther than myself, that I may at last, out of your Majesty's grace and favour, step forwards to a place either of more comfort or more ease. Besides, how necessary it is for your Majesty to strengthen your service amongst the judges by a chief justice, which is sure to your prerogative, your Majesty knoweth. Therefore I cease farther to trouble your Majesty, humbly craving pardon, and relying wholly upon your goodness and remembrance, and resting in all true humbleness,

Your Majesty's most devoted, and faithful subject and servant,

FR. BACON.

Reasons why it should be exceeding much for his Majesty's service to remove the lord Coke *from the place he now holdeth ¶ to be chief justice of England,** and the attorney†† to succeed him, and the solicitor ‡‡ the attorney.*

First, it will strengthen the king's causes greatly amongst the judges; for both my lord Coke will think himself near a privy counsellor's place, and thereupon turn obsequious; and the attorney-general, a new man, and a grave person, in a judge's place, will come in well to the other, and hold him hard to it, not without emulation between them, who shall please the king best.

[*Relig. Wotton*, p. 421, edit. 3d,] written about the beginning of June, 1613, mentions, that Sir Robert Mansell and Mr. Whitelocke were, on the Saturday before, called to a very honourable hearing in the queen's presence-chamber at Whitehall, before the lords of the council, with interventinn of the lord chief justice Coke, the lord chief baron Tanfield, and the master of the rolls; the lord chief justice of the king's bench, Fleming, being kept at home by some infirmity. There the attorney and solicitor first undertook Mr. Whitelocke, and the recorder, [Henry Montagu,] as the king's serjeant, Sir Robert Mansell, charging the one as a counsellor, the other as a questioner, in matters of the king's prerogative and sovereignty upon occasion of a commission intended for a research into the administration of the admiralty. "Whitelocke in his answer," adds Sir Henry Wotton, "speaks more confusedly than was expected from a lawyer; and the knight more temperately than was expected from a soldier . . . . Whitelocke ended his speech with an absolute confession of his own offence, and with a promise of employing himself hereafter in defence of the king's prerogative. . . . In this they generally agreed, both counsellors and judges, to represent the humiliation of both the prisoners to the king, in lieu of innocency, and to intercede for his gracious pardon: which was done, and accordingly the next day they were enlarged upon a submission under writing."

* He was committed to the Tower on the 21st of April, 1613, and died there of poison on the 15th of September following.

† Sir Thomas Fleming, who died about August, 1613.

‡ Sir Henry Hobart, who was made lord chief justice of the common pleas, November 26, 1613, in the room of Sir Edward Coke, removed to the post of lord chief justice of the king's bench, October 25.

§ Sir Francis Bacon himself, who was appointed attorney-general, October 27, 1613.

‖ To Sir Julius Cæsar.

¶ Of chief justice of the common pleas, having been appointed to that office June 30, 1606.

** He was advanced to that office October 25, 1613.

†† Sir Henry Hobart, who had been appointed attorney-general July 4, 1606.

‡‡ Sir Francis Bacon, who had been sworn solicitor-general June 25, 1607.

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Secondly, the attorney-general sorteth not so well with his present place, being a man timid and scrupulous both in parliament and other business, and one, that in a word was made fit for the late lord treasurer's bent, which was to do little with much formality and protestation: whereas the now solicitor going more roundly to work, and being of a quicker and more earnest temper, and more effectual in that he dealeth in, is like to recover that strength to the king's prerogative, which it hath had in times past, and which is due unto it. And for that purpose there must be brought in to be solicitor some man of courage and speech, and a grounded lawyer; which done, his Majesty will speedily find a marvellous change in his business. For it is not to purpose for the judges to stand well-disposed, except the king's council, which is the active and moving part, put the judges well to it; for in a weapon, what is a back without an edge?

Thirdly, the king shall continue and add reputation to the attorney's and solicitor's place, by this orderly advancement of them; which two places are the champion's places for his rights and prerogative; and being stripped of their expectations and successions to great place, will wax vile; and then his Majesty's prerogative goeth down the wind.

Besides, the remove of my lord Coke to a place of less profit, though it be with his will, yet will be thought abroad a kind of discipline to him for opposing himself in the king's causes; the example whereof will contain others in more awe.

Lastly, whereas now it is voiced abroad touching the supply of places, as if it were a matter of labour, and canvass, and money; and other persons are chiefly spoken of to be the men, and the great suitors; this will appear to be the king's own act, and is a course so natural and regular, as it is without all suspicion of these by-courses, to the king's infinite honour. For men say now, the king can make good second judges, as he hath done lately;* but that is no mastery, because men sue to be kept from these places. But now is the trial in those great places, how his Majesty can hold good, where there is great suit and means.

TO THE KING.

IT MAY PLEASE YOUR MOST EXCELLENT MAJESTY,

WE have, with all possible care and diligence, considered Cotton's † cause, the former and the

* Sir John Doddridge was made judge of the king's bench, November 25, 1612, and Sir Augustin Nichols of the common pleas the day following.

† The case of this gentleman will render the detail of it necessary for the illustration of this letter; and the circumstances of it, not known in our history, may be thought to deserve the reader's attention. He was a native of the West of England, and a recusant, against whom a proclamation was issued in June 1613, charging him with high treason against the king and state for having published a very scandalous and railing book against his Majesty, under the title of *Balaam's Ass*, which was dropped in the gallery at Whitehall. Just at the time of publishing this proclamation, he happened to cross the Thames, and inquiring of the watermen what news? they, not knowing him, told him of the proclamation. At landing, he muffled himself up in his cloak, to avoid being known; but had not gone many paces, when one Mr. Maine, a friend of his, meeting and discovering him, warned him of his danger; and being asked what he would advise him to do, recommended it to him to surrender himself; which he did to the earl of Southampton. He denied himself to be the author of the libel: but his study being searched, among his papers were found many parts of the book, together with relics of those persons who had been executed for the gun-powder treason, as one of Sir Everard Digby's fingers, a toe of Thomas Percy, some other part of Catesby or Rookewood, and a piece of one of Peter Lambert's ribs. He was kept prisoner in the Tower till March 1618, when the true author of the libel was discovered to be John Williams, Esq. a barrister of the Middle Temple, who had been expelled the house of commons on account of his being a papist. The discovery was owing to this accident: a pursuivant in want of money, and desirous to get some by his employment, waited at the Spanish ambassador's door, to see if he could light upon any prey. At last came out Mr. Williams, unknown to the pursuivant; but carrying, in his conceit, the countenance of a priest. The pursuivant, therefore, followed him to his inn, where Williams, having mounted his horse, the pursuivant came to him, and told him, that he must speak a word or two with him. "Marry, with all my heart," said Williams; "what is your pleasure?" "*You must light*," answered the pursuivant; "*for you are a priest*." "A priest?" replied Williams; "I have a good warrant to the contrary, for I have a wife and children." Being, however, obliged to dismount, the pursuivant searched him; and in his pocket was found a bundle of papers sealed up; which the pursuivant going to open, Williams made some resistance, pretending they were evidences of a gentleman whose law-businesses he transacted. The pursuivant insisting upon opening the papers, among them was found *Balaam's Ass*, with new annotations; of which, upon examination, Williams confessed himself to be the author. He was brought to trial on the 3d of May, 1619, for writing that and another book entitled *Speculum Regale*; in both of which he had presumed to prophesy, that the king would die in 1621, grounding this prediction on the prophecy of Daniel, where the prophet speaks of *time and times, and half a time*. He further affirmed, that antichrist will be revealed when sin shall be at the highest; and then the end is nigh: that such is our time: sin is now at the highest; *ergo* that the land is the abomination of desolation mentioned by Daniel, and the habitation of devils, and the antimark of Christ's church. Williams's defence was, 1. That what he had written was not with any malice or disloyalty of heart towards the king, but purely from affection, and by way of caution and admonition, that his Majesty might avoid the mischiefs likely to befall him; having added in his book, when he delivered the threats of judgment and destruction, *which God avert*, or such words. 2. That the matter rested only in opinion and thought, and contained no overt act; no rebellion, treason, or other mischief following it. 3. That he had enclosed his book in a box sealed up, and secretly conveyed it to the king, without ever publishing it. But the court was unanimously of opinion, that he was guilty of high treason; and that the words contained in the libel, as cited above, imported the end and destruction of the king and his realm; and that antichristianism and false religion were maintained in the said realm; which was a motive to the people to commit treasons, to raise rebellions, &c. and that the writing of the book was a publication. *Reports of Henry Rolle, serjeant at law*, part II. p. 88. In consequence of this judgment he had a sentence of death passed upon him, which was executed over-against Charing-Cross two days after. MS letters of Mr. Thomas Locking to Sir Thomas Puckering, Bart. dated at London, June the 24th and 30th, 1613, and March the 16th, 1618-9, and May the 4th and 5th, 1619, among the Harleian MSS. Vol. 7002. At his death he adhered to his profession of the Roman catholic religion, and died with great resolution. He prayed for the king and prince; and said, that he was sorry for having written so saucily and irreverently; but pretended that he had an inward warrant and particular illumination to understand certain hard passages of Daniel and the Revelation, which made him adventure so far. MS letter of John Chamberlain, Esq to Sir Dudley Carleton, dated at London, May 8, 1619.

This case was urged against the *seven bishops* at their trial in king James II.'s reign by Sir William Williams, then solicitor-general, who observed, *Trial*, p. 76, that it had been made use of by Mr. Solicitor-general Finch on the trial of Col. Sidney, and was the great "case relied upon, and that guided and governed that case;" though there is nothing of this, that appears in the printed trial of Sidney.

It is but justice to the memory of our great antiquary, Sir

latter, touching the book and the letter in the gilt apple, and have advisedly perused and weighed all the examinations and collections which were formerly taken; wherein we might attribute a good deal of worthy industry and watchful inquiry to my lord of Canterbury. We thought fit also to take some new examinations; which was the cause we certified no sooner. Upon the whole matter, we find the cause of his imprisonment just, and the suspicions and presumptions many and great; which we little need to mention, because your Majesty did relate and inforced them to us in better perfection, than we can express them. But, nevertheless, the proofs seem to us to amount to this, that it was possible he should be the man; and that it was probable, likewise, he was the man: but no convicting proofs, that may satisfy a jury of life and death, or that may make us take it upon our conscience, or to think it agreeable to your Majesty's honour, which next our conscience to God, is the dearest thing to us on earth, to bring it upon the stage; which notwithstanding we, in all humbleness, submit to your Majesty's better judgment. For his liberty, and the manner of his delivery, he having so many notes of a dangerous man, we leave it to your princely wisdom. And so commending your Majesty to God's precious custody, we rest

Your Majesty's most humble and bounden servants,

FR. BACON.
H. MONTAGUE.
H. YELVERTON.

22 Jan. 1613.

TO JOHN MURRAY* OF THE BED-CHAMBER TO THE KING.†

MR. MURRAY,

I KEEP the same measure in a proportion with my master and with my friend; which is, that I will never deceive them in any thing, which is in my power; and when my power faileth my will, I am sorry.

Monday is the day appointed for performing his Majesty's commandment. Till then I cannot tell what to advise you farther, except it should be this, that in case the judges should refuse to take order in it themselves, then you must think of some warrant to Mr. Secretary, who is your friend, and constant in the businesses, that he see forthwith his Majesty's commandment executed, touching the double lock; and, if need be, repair to the place, and see by view the manner of keeping the seal; and take order, that there be no stay for working of the seal of justice, nor no prejudice to Killegrew's farm, nor to the duty of money paid to the chief justice. Whether this may require your presence, as you write, that yourself can best judge. But of this more, when we have received the judges' answer. It is my duty, as much as in me is, to procure my master to be obeyed. I ever rest

Your friend and assured

January 21, 1614. FR. BACON.

I pray deliver the enclosed letter to his Majesty.

To his very good friend Mr. John Murray, of his Majesty's bed-chamber.

Robert Cotton, Bart. to remark here a mistake of Dr. Thomas Smith in his life of Sir Robert, p. 26, prefixed to his catalogue of the Cottonian library, where he has confounded the Cotton, mentioned in the beginning of this note, with Sir Robert Cotton, and erroneously supposed, that the suspicion of having written the libel had fallen upon the latter.

* He was created viscount of Annan in Scotland, in August, 1622. *Negotiations of Sir Thomas Roe, in his Embassy to the Ottoman Porte*, p. 93. In April, 1624, the lord Annan was created earl of Annandale in Scotland. Ibid. p. 250.

TO MR. MURRAY.

MR. MURRAY,

MY Lord Chancellor, yesterday in my presence, had before him the judges of the common pleas, and hath performed his Majesty's royal command in a very worthy fashion, such as was fit for our master's greatness; and because the king may know it, I send you the enclosed. This seemeth to have wrought the effect desired; for presently I sent for Sir Richard Cox,‡ and willed him to present himself to my lord Hobart, and signify his readiness to attend. He came back to me, and told me, all things went on. I know not what afterwards may be; but I think this long chase is at an end. I ever rest

Yours assured,

January 25, 1614. FR. BACON.

TO MR. MURRAY.

MR. MURRAY,

I PRAY deliver the enclosed to his Majesty, and have care of the letter afterwards. I have written also to his Majesty about your reference to this purpose, that if you can get power over the whole title, it may be safe for his Majesty to assent, that you may try the right upon the deed. This is the farthest I can go. I ever rest

Yours assured,

February 28, 1614. FR. BACON.

TO THE KING.

MAY IT PLEASE YOUR MOST EXCELLENT MAJESTY,

I SEND your Majesty enclosed, a copy of our last examination of Peacham,§ taken the 10th of this

† This, and the three following letters, are printed from Harl. MSS. Vol. 6986.

‡ He was one of the masters of the green cloth, and had had a quarrel at court during the Christmas holy-days of the year 1614, with Sir Thomas Erskine; which quarrel was made up by the lords of the marshal's court, Sir Richard being obliged to put up with very foul words. MS. letter of Mr. Chamberlain to Sir Dudley Carleton, January 12, 1614-5.

§ Edmund Peacham, a minister in Somersetshire. [MS. letter of Mr. Chamberlain, dated January 5, 1614-15.] I find one

present; whereby your Majesty may perceive, that this miscreant wretch goeth back from all, and denieth his hand and all. No doubt, being fully of belief, that he should go presently down to his trial, he meant now to repeat his part, which he purposed to play in the country, which was to deny all. But your Majesty in your wisdom perceiveth, that this denial of his hand, being not possible to be counterfeited, and to be sworn by Adams, and so oft by himself formerly confessed and admitted, could not mend his case before any jury in the world, but rather aggravateth it by his notorious impudency and falsehood, and will make him more odious. He never deceived me; for when others had hopes of discovery, and thought time well spent that way, I told your Majesty *pereuntibus mille figuræ*; and that he now did but turn himself into divers shapes, to save or delay his punishment. And therefore submitting myself to your Majesty's high wisdom, I think myself bound in conscience to put your Majesty in remembrance, whether Sir John Sydenham * shall be detained upon this man's impeaching, in whom there is no truth. Notwithstanding, that farther inquiry be made of this other Peacham, and that information and light be taken from Mr. Poulet † and his servants, I hold it, as things are, necessary. God preserve your Majesty.

Your Majesty's most humble and devoted subject and servant,

FR. BACON.

March 12, 1614.

Supplement of two passages omitted in the edition of Sir Francis Bacon's *speech in the King's Bench, against* Owen,‡ *as printed in his works. After the words* [it is bottomless] *in the paragraph beginning* [For the reason itself, which is the second point &c.] *add,*

[I said in the beginning, that this treason in the nature of it was old. It is not of the treasons whereof it may be said *from the beginning it was not so.* You are indicted, Owen, not upon any statute made against the pope's supremacy, or other matters, that have reference to religion; but merely upon that law, which was born with the kingdom, and was law even in superstitious times, when the pope was received. The compassing and imagining of the king's death was treason. The statute of the 25th of Edward III. which was but declaratory, begins with this article, as the capital of capitals in treason, and of all others the most odious and the most perilous.] And so the civil law, &c.

At the conclusion of his speech, after the words [*the duke of Anjou, and the papists*] add,

[As for subjects, I see not, or ever could discern, but that by infallible consequence, it is the case of all subjects and people, as well as of kings; for it is all one reason, that a bishop, upon an excommunication of a private man, may give his lands and goods in spoil, or cause him to be slaughtered, as for the pope to do it towards a king; and for a bishop to absolve the son from duty to the father, as for the pope to absolve the subject from his allegiance to his king. And this is not my inference, but the very affirmative of pope Urban the second, who in a brief to Godfrey, bishop of Luca, hath these very words, which cardinal Baronius reciteth in his Annals, tom. xi. p. 802. "Non illos homicidas arbitramur, qui adversus excommunicatos zelo

of both his names, who was instituted into the vicarage of Ridge in Hertfordshire, July 22, 1581, and resigned it in 1587. [Newcourt, *Repertor.* Vol. I. p. 864.] Mr. Peacham was committed to the Tower for inserting several treasonable passages in a sermon *never preached, nor*, as Mr. Justice Croke remarks in his *Reports* during the reign of king Charles I. p. 125, *ever intended to be preached*. Mr. Chamberlain, in a letter of the 9th of February, 1614-15, to Sir Dudley Carleton, mentions Mr. Peacham's having been "stretched already, though he be an old man, and they say, much above threescore: but they could wring nothing out of him more than they had at first in his papers. Yet the king is extremely incensed against him, and will have him prosecuted to the uttermost." In another letter dated February 23, we are informed, that the king, since his coming to London on the 15th, had had "the opinion of the judges severally in Peacham's case; and it is said, that most of them concur to find it treason; yet my lord chief justice [Coke] is for the contrary; and if the lord Hobart, that rides the western circuit, can be drawn to jump with his colleague, the chief baron, [Tanfield,] it is thought he shall be sent down to be tried, and trussed up in Somersetshire." In a letter of the 2nd of March, 1614-15, Mr. Chamberlain writes, "Peacham's trial at the western assizes is put off, and his journey stayed, though Sir Randall Crew, the king's serjeant, and Sir Henry Yelverton, the solicitor, were ready to go to horse to have waited on him there." "Peacham, the minister," adds he in a letter, of the 13th of July 1615, "that hath been this twelvemonth in the Tower, is sent down to be tried for treason in Somersetshire before the lord chief baron and Sir Henry Montagu the recorder. The lord Hobart gave over that circuit the last assizes. Sir Randall Crew, and Sir Henry Yelverton, the king's serjeant and solicitor, are sent down to prosecute the trial." The event of this trial, which was on the 7th of August, appears from Mr. Chamberlain's letter of the 14th of that month, wherein it is said, that "seven knights were taken from the bench, and appointed to be of the jury. He defended himself very simply, but obstinately and doggedly enough. But his offence was so foul and scandalous, that he was condemned of high treason; yet not hitherto executed, nor perhaps shall be, if he have the grace to submit himself, and show some remorse." He died, as appears from another letter of the 27th of March, 1616, in the jail at Taunton, where he was said to have "left behind a most wicked and desperate writing, worse than that he was convicted for."

* He had been confronted about the end of February, or beginning of March, 1614-15, with Mr. Peacham, about certain speeches, which had formerly passed between them. MS. letter of Mr. Chamberlain to Sir Dudley Carleton, from London, March 2, 1614-15.

† John Poulet, Esq. knight of the shire for the county of Somerset in the parliament, which met April 5, 1614. He was created lord Poulet of Heaton St. George, June 23, 1627.

‡ He was of the family of that name at Godstow in Oxfordshire. [*Camdeni Annales Regis Jacobi I.* p. 12.] He was a young man who had been in Spain; and was condemned at the king's bench, on Wednesday, May 17, 1615, "for divers most vile and traitorous speeches confessed and subscribed with his own hand; as, among others, that it was as lawful for any man to kill a king excommunicated, as for the hangman to execute a condemned person. He could say little for himself, or in maintenance of his desperate positions, but only that he meant it not by the king, and he holds him not excommunicate." MS. letter of Mr. Chamberlain to Sir Dudley Carleton, from London, May 20, 1615.

catholicæ matris ardentes eorum quoslibet trucidare contigeret," speaking generally of all excommunications.]

TO MR. MURRAY.*

Good Mr. Murray,

According to his Majesty's pleasure by you signified unto me, we have attended my lord chancellor,† my lord treasurer,‡ and Mr. Chancellor of the exchequer,§ concerning Sir Gilbert Houghton's patent stayed at the seal; and we have acquainted them with the grounds and state of the suit, to justify them, that it was just and beneficial to his Majesty. And for any thing we could perceive by any objection or reply they made, we left them in good opinion of the same, with this, that because my lord chancellor, by the adviee as it seemeth of the other two, had acquainted the council-table, for so many as were then present, with that suit amongst others, they thought fit to stay till his Majesty's coming to town, being at hand, to understand his farther pleasure. We purpose upon his Majesty's coming, to attend his Majesty, to give him a more particular account of this business, and some other. Meanwhile, finding his Majesty to have care of the matter, we thought it our duty to return this answer to you in discharge of his Majesty's direction. We remain,

Your assured friends,

FRANCIS BACON.
HENRY YELVERTON.

July 6th, 1615.

SIR FRANCIS BACON, TO LORD NORRIS, IN ANSWER TO HIM.‖

My lord,

I am sorry of your misfortune; and for any thing, that is within mine own command, your lordship may expect no other than the respects of him, that forgetteth not your lordship is to him a near ally, and an ancient acquaintance, client, and friend. For that, which may concern my place, which governeth me, and not I it; if any thing be demanded at my hands or directed, or that I am *ex officio* to do any thing; if, I say, it come to any of these three; for as yet I am a stranger to the business; yet saving my duties, which I will never live to violate, your lordship shall find, that I will observe those degrees and limitations of proceeding, which belongeth to him, that knoweth well he serveth a clement and merciful master, and that in his own nature shall ever incline to the more benign part; and that knoweth also what belongeth to nobility, and to a house of such merit and reputation, as the lord Norris is come from. And even so I remain,

Your lordship's very loving friend,

Sept. 20, 1615.

TO THE KING.¶

It may please your excellent Majesty,

I received this very day, in the forenoon, your Majesty's several directions touching your cause prosecuted by my lord Hunsdon** as your farmer. Your first direction was by Sir Christopher Parkins, that the day appointed for the judicial sentence should hold: and if my lord chief justice, upon my repair to him, should let me know, that he could not be present, then my lord chancellor should proceed, calling to him my lord Hobart, except he should be excepted to; and then some other judge by consent. For the latter part of this your direction, I suppose, there would have been no difficulty in admitting my lord Hobart; for after he had assisted at so many hearings, it would have been too late to except to him. But then your Majesty's second and later direction, which was delivered unto me from the earl of Arundel, as by word of mouth, but so as he had set down a remembrance thereof in writing freshly after the signification of his pleasure, was to this effect, that before any proceeding in the chancery, there should be a conference had between my lord chancellor, my lord chief justice, and myself, how your Majesty's interest might be secured. This later direction I acquainted my lord chancellor with; and finding an impossibility, that this conference should be had before to-morrow, my lord thought good, that the day be put over, taking no occasion thereof other than this, that in a cause of so great weight it was fit for him to confer with his assistants, before he gave any decree or final order. After such time as I have conferred with my lords, according to your commandment, I will give your Majesty account with speed of the conclusion of that conference.

Farther, I think fi to let your Majesty know, that in my opinion I hold it a fit time to proceed in the business of the *Rege inconsulto*, which is appointed for Monday, I did think these greater causes would have come to period or pause sooner: but now they are in the height, and to have so great a matter as this of the *Rege inconsulto* handled, when men do *aliud agere*, I think it no proper time. Besides, your Majesty in your great wisdom knoweth, that this business of Mr. Murray's is somewhat against the stream of the judges' inclination: and it is no part of a skilful mariner to sail on against a tide, when the tide is at strongest. If your Majesty be pleased to write to my lord Coke, that you would have the business of the *Rege inconsulto* receive a hearing, when he should be *animo sedato et libero*,

* Harl. MSS. Vol. 6986.
† Ellesmere.
‡ Thomas Howard, earl of Suffolk.
§ Sir Fulk Grevile, advanced to that post October 1, 1614, in the room of Sir Julius Cæsar, made master of the rolls.

‖ From the collections of the late Robert Stephens, Esq.
¶ Harl. MSS. Vol. 6986.
** John Carey, Baron of Hunsdon. He died in April, 1617.

and not in the midst of his assiduous and incessant cares and industries in other practices, I think your Majesty shall do your service right. Howsoever, I will be provided against the day.

Thus praying God for your happy preservation, whereof God giveth you so many great pledges,

I rest your Majesty's most humble and devoted subject and servant,

FR. BACON.

November 17, 1615.

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*Innovations introduced into the laws and government.**

1. The ecclesiastical commission.

In this he prevailed, and the commission was pared, and namely, the point of alimony left out, whereby wives are left wholly to the tyranny of their husbands. This point, and some others, may require a review, and is fit to be restored to the commission.

2. Against the provincial councils.

In this he prevailed in such sort, as the precedents are continually suitors for the enlargement of the instructions, sometimes in one point, sometimes in another; and the jurisdictions grow into contempt, and more would, if the lord chancellor did not strengthen them by injunctions, where they exceed not their instructions.

3. Against the star-chamber for levying damages.

In this he was overruled by the sentence of the court; but he bent all his strength and wits to have prevailed: and so did the other judges by long and laborious arguments: and if they had prevailed, the authority of the court had been overthrown. But the plurality of the court took more regard to their own precedents, than to the judges' opinion.

4. Against the admiralty.

In this he prevaileth, for prohibitions fly continually; and many times are cause of long suits, to the discontent of foreign ambassadors, and the king's dishonour and trouble by their remonstrances.

5. Against the court of the duchy of Lancaster prohibitions go; and the like may do to the court of wards and exchequer.

This is new, and would be forthwith restrained, and the others settled.

6. Against the court of requests.

In this he prevaileth; and this but lately brought in question.

7. Against the chancery for decrees after judgment.

In this his Majesty hath made an establishment: and he hath not prevailed, but made a great noise and trouble.

8. Præmunire for suits in the chancery.

This his Majesty hath also established, being a strange attempt to make the chancellor sit under a hatchet, instead of the king's arms.

9. Disputed in the common pleas whether that court may grant a prohibition to stay suits in the chancery, and time given to search for precedents.

This was but a bravery, and dieth of itself, especially the authority of the chancery by his Majesty's late proceedings being so well established.

10. Against the new boroughs in Ireland.

This in good time was overruled by the voice of eight judges of ten, after they had heard your attorney. And had it prevailed, it had overthrown the parliament of Ireland, which would have been imputed to a fear in this state to have proceeded; and so his Majesty's authority and reputation lost in that kingdom.

11. Against the writs *Dom. Rege inconsulto.*

This is yet *sub judice:* but if it should prevail, it maketh the judges absolute over the patents of the king, be they of power and profit, contrary to the ancient and ever continued law of the crown; which doth call those causes before the king himself, as he is represented in chancery.

12. Against contribution, that it was not law neither to levy it, nor to move for it.

In this he prevailed, and gave opinion, that the king by his great seal could not so much as move any his subjects for benevolence. But this he retracted after in the star-chamber; but it marred the benevolence in the mean time.

13. Peacham's case.

In this, for as much as in him was, and in the court of king's bench, he prevailed, though it was holpen by the good service of others. But the opinion, which he held, amounted in effect to this, that no word of scandal or defamation, importing that the king was utterly unable or unworthy to govern, were treason, except they disabled his title, &c.

14. Owen's case.

In this we prevailed with him to give opinion it was treason: but then it was upon a conceit of

* This paper was evidently designed against the lord chief justice Coke.

his own, that was no less dangerons, than if he had given his opinion against the king; for he proclaimed the king excommunicate in respect of the anniversary bulls of *Cœna Domini*, which was to expose his person to the fury of any jesuited conspirator.

15. The value of benefices not to be according to the tax in the king's book of taxes.

By this the intent of the statute of 21 Henry VIII. is frustrated; for there is no benefice of so small an improved value as 8*l.* by that kind of rating. For this the judges may be assembled in the exchequer for a conference.

16. Suits for legacies ought to be in their proper dioceses, and not in the prerogative court; although the will be proved in the prerogative court upon *bona notabilia* in several dioceses, commendams, &c.

The practice hath gone against this; and it is fit the suit be where the probate is. And this served but to put a pique between the archbishops' courts and the bishops' courts. This may be again pounded upon a conference of the judges.

TO SIR GEORGE VILLIERS.

Sir,

The message, which I received from you by Mr. Sbate, hath bred in me such belief and confidence, as I will now wholly rely upon your excellent and happy self. When persons of greatness and quality begin speech with me of the matter, and offer me their good offices, I can but answer them civilly. But those things are but toys: I am yours surer to you than to my own life; for, as they speak of the Turquois stone in a ring, I will break into twenty pieces, before you have the least fall. God keep you ever.

Your truest servant,

Feb. 15, 1615. FR. BACON.

My lord chancellor is prettily amended. I was with him yesterday almost half an hour. He used me with wonderful tokens of kindness. We both wept, which I do not often.

Indorsed,

A letter to Sir G. Villiers touching a message brought to him by Mr. Shute, of a promise of the chancellor's place.

* From an old manuscript in my possession, entitled *A Book of Letters of Sir Francis Bacon.*

SIR FRANCIS BACON TO SIR GEORGE VILLIERS.*

Touching the examination of Sir Robert Cotton upon some information of Sir John Digby.†

I received your letter yesterday towards the evening, being the 8th of this present, together with the interrogatory included, which his Majesty hath framed, not only with a great deal of judgment what to interrogate, but in a wise and apt order; for I do find that the degrees of questions are of great efficacy in examination. I received also notice and direction by your letter, that Sir Robert Cotton was first thoroughly to be examined; which indeed was a thing most necessary to begin with; and that for that purpose Sir John Digby was to inform my lord chancellor of such points, as he conceived to be material; and that I likewise should take a full account for my lord chief justice of all Sir Robert Cotton's precedent examinations. It was my part then to take care, that that, which his Majesty had so well directed and expressed, should be accordingly performed without loss of time. For which purpose, having soon after the receipt of your letter received a letter from my lord chancellor, that he appointed Sir John Digby to be with him at two of the clock in the afternoon, as this day, and required my presence, I spent the mean time, being this forenoon, in receiving the precedent examinations of Sir Robert Cotton from my lord chief justice, and perusing of them; and accordingly attended my lord chancellor at the hour appointed, where I found Sir John Digby.

At this meeting it was the endeavour of my lord chancellor and myself to take such light from Sir John Digby, as might evidence first the examination of Sir Robert Cotton; and then to the many examinations of Somerset; wherein we found Sir John Digby ready and willing to discover unto us what he knew; and he had also, by the lord chancellor's direction, prepared some heads of examination in writing for Sir Robert Cotton; of all which use shall be made for his Majesty's service, as is fit. Howbeit, for so much as did concern the practice of conveying the prince into Spain, or the Spanish pensions, he was somewhat reserved upon this ground, that they were things his Majesty knew, and things, which by some former commandment from his Majesty he was restrained to keep in silence, and that he conceived they could be no ways applied to Somerset. Wherefore it was not fit to press him beyond that, which he conceived to be his warrant, before we had known his Majesty's farther pleasure; which I pray you return unto us with all convenient speed. I for my part am in no appetite for secrets; but nevertheless seeing his Majesty's great trust towards me, wherein I shall never

† Secretary Winwood, in a private letter to Sir Thomas Edmondes, printed in the *Historical View of the Negotiations between the Courts of England, France, and Brussels*, p. 392, mentions, that there was great expectation, that Sir John Digby, just then returned from Spain, where he had been ambassador, could charge the earl of Somerset with *some treasons and plots with Spain.* "To the king," adds Sir Ralph, "as yet he hath used no other language, but that, having served in a place of honour, it would ill become him to be an accuser. Legally or criminally he can say nothing: yet this he says and hath written, that all his private despatches, wherein he most discovered the practices of Spain, and their intelligences, were presently sent into Spain; which could not be but by the treachery of Somerset."

deceive him; and that I find the chancellor of the same opinion, I do think it were good my lord chancellor chiefly and myself were made acquainted with the persons and the particulars; not only because it may import his Majesty's service otherwise, but also because to my understanding, for therein I do not much rely upon Sir John Digby's judgment, it may have a great connexion with the examination of Somerset, considering his mercenary nature, his great undertaking for Spain in the match, and his favour with his Majesty; and therefore the circumstances of other pensions given cannot but tend to discover whether he were pensioner or no.

But herein no time is lost; for my lord chancellor, who is willing, even beyond his strength, to lose no moment for his Majesty's service, hath appointed me to attend him Thursday morning for the examination of Sir Robert Cotton, leaving to-morrow for council-business to my lord, and to me for considering of fit articles for Sir Robert Cotton.

10 April, 1616.

MR. TOBIE MATTHEW* TO SIR FRANCIS BACON, ATTORNEY-GENERAL.

MAY IT PLEASE YOU, SIR,

THE notice I have from my lord Roos, Sir Henry Goodere, and other friends, of the extreme obligation, wherein I continue towards you, together with the conscience I have of the knowledge, how dearly and truly I honour and love you, and daily pray, that you may rise to that height, which the state, wherein you live, can give you, hath taken away the wings of fear, whereby I was almost carried away from daring to importune you in this kind. But I know how good you have always been, and are still, towards me; or rather because I am not able to comprehend how much it is, I will presume there is enough for any use, whereupon an honest humble servant may employ it.

It imports the business of my poor estate, that I be restored to my country for some time; and I have divers friends in that court, who will further my desire thereof, and particularly Mr. Secretary Lake and my lord Roos, whom I have desired to confer with you about it. But nothing can be done therein, unless my lord of Canterbury† may be made propitious, or at least not averse; nor do I know in the world how to charm him but by the music of your tongue. I beseech you, Sir, lose some minutes upon me, which I shall be glad to pay by whole years of service; and call to mind, if it please you, the last speech you made me, that if I should continue as I then was, and neither prove ill-affected to the state, nor become otherwise than a mere secular man in my religion, you would be pleased to negotiate for my return. On my part the conditions are performed; and it remains that you do the like: nor can I doubt but that the nobleness of your nature, which loves nothing in the world so well as to be doing of good, can descend from being the attorney-general to a great king, to be solicitor for one of the meanest subjects that he hath.

I send my letter to my lord's grace open, that before you seal it, if you shall think fit to seal it, and rather not to deliver it open, you may see the reasons that I have; which, if I be not partial, are very pregnant. Although I confess, that till it was now very lately mentioned to me by some honourable friends, who have already procured to disimpression his Majesty of some hard conceit he had of me in, I did not greatly think thereof; and now I am full of hope, that I shall prevail. For supposing, that my lord of Canterbury's mind is but made of iron, the adamant of your persuasion will have power to draw it. It may please you either to send a present answer hereunto; or, since I am not worthy of so much favour, to tell either of those honourable persons aforenamed what the answer is, that accordingly they may co-operate.

This letter goes by Sir Edward Parham, a gentleman whom I have been much beholden to. I know him to be a perfect honest man; and since, I protest, I had rather die than deceive you, I will humbly pray, that he may rather receive favour from you, than otherwise, when he shall come in your way, which at one time or other all the world there must do. And I shall acknowledge myself much bound to you, as being enabled by this means to pay many of my debts to him.

I presume to send you the copy of a piece of a letter, which Galileo, of whom, I am sure, you have heard, wrote to a monk of my acquaintance in Italy, about the answering of that place in Joshua, which concerns the sun's standing still, and approving thereby the pretended falsehood of Copernicus's opinion. The letter was written by occasion of the opposition, which some few in Italy did make against Galileo, as if he went about to establish that by experiments, which appears to be contrary to Holy Scripture. But he makes it appear the while by this piece of a letter, which I send you, that if that passage of Scripture doth expressly favour either side, it is for the affirmative of Copernicus's opinion, and for the negative of Aristotle's. To an attorney-general in the midst of a town, and such a one, as is employed in the weightiest affairs of the kingdom, it might seem unsensonable for me to interrupt you with matter of this nature. But I know well enough in how high account you have the truth of things; and that no day can pass, wherein you give not liberty to your wise thoughts of looking upon the works of nature. It may please you to pardon the so much trouble which I give you in this kind; though yet, I confess, I do not deserve a pardon,

* Son of Dr. Tobie Matthew, archbishop of York. He was born at Oxford in 1578, while his father was dean of Christ-church, and educated there. During his travels abroad, he was seduced to the Romish religion by Father Parsons. This occasioned his living out of his own country from the year 1607 to 1617, when he had leave to return to England. He was again ordered to leave it in October, 1618; but in 1622 was recalled to assist in the match with Spain; and on account of his endeavours to promote it, was knighted by king James I. at Royston, on the 10th of October, 1623. He translated into Italian Sir Francis Bacon's *Essays*, and died at Ghent in Flanders, October 13th, 1655. N. S.

† Dr. George Abbot.

because I find not in myself a purpose of forbearing to do the like hereafter. I most humbly kiss your hand.

Your most faithful and affectionate servant,
TOBIE MATTHEW.

Brussels, this 21st of April, 1616.

SIR FRANCIS BACON TO THE JUDGES.*

My lord,

It is the king's express pleasure, that because his Majesty's time would not serve to have conference with your lordship and his judges touching his cause of commendams at his last being in town, in regard of his Majesty's other most weighty occasions; and for that his Majesty holdeth it necessary, upon the report, which my lord of Winchester, who was present at the last argument by his Majesty's royal commandment, made to his Majesty, that his Majesty be first consulted with, ere there be any farther proceeding by argument by any of the judges or otherwise: Therefore, that the day appointed for the farther proceeding by argument of the judges in that case be put off till his Majesty's farther pleasure be known upon consulting him; and to that end, that your lordship forthwith signify his commandment to the rest of the judges; whereof your lordship may not fail. And so I leave your lordship to God's goodness.

Your loving friend to command,
FR. BACON.

This Thursday at afternoon,
the 25th of April, 1616.

Questions legal for the Judges [in the case of the Earl and Countess of Somerset].

Whether the axe is to be carried before the prisoner, being in the case of felony?

Whether, if the lady make any digression to clear his lordship, she is not by the lord steward to be interrupted and silenced?

Whether, if my lord of Somerset should break forth into any speech of taxing the king, he be not presently by the lord steward to be interrupted and silenced; and, if he persist, he be not to be told, that if he take that course, he is to be withdrawn, and evidence to be given in his absence? And whether that may be; and what else to be done?

Whether if there should be twelve votes to condemn, and twelve or thirteen to acquit, it be not a verdict for the king?

Questions of Convenience, whereupon his Majesty may confer with some of the Counsel.

Whether, if Somerset confess at any time before his trial, his Majesty shall stay trial in respect of farther examination concerning practice of treason, as the death of the late prince, the conveying into Spain of the now prince, or the like; for till he confess the less crime, there is [no] likelihood of confessing the greater?

Whether, if the trial upon that reason shall be put off, it shall be discharged privately by dissolving the commission, or discharging the summons? Or whether it shall not be done in open court, the peers being met, and the solemnity and celebrity preserved; and that with some declaration of the cause of putting off the farther proceeding?

Whether the days of her trial and his shall be immediate, as it is now appointed; or a day between, to see if, after condemnation, the lady will confess of this lord; which done, there is no doubt but he will confess of himself?

Whether his trial shall not be set first, and hers after, because then any conceit, which may be wrought by her clearing of him, may be prevented; and it may be he will be in the better temper, hoping of his own clearing, and of her respiting?

What shall be the days; for Thursday and Friday can hardly hold in respect of the summons; and it may be as well Friday and Saturday, or Monday and Tuesday, as London makes it already?

A particular remembrance for his Majesty.

It were good, that after he is come into the Hall, so that he may perceive he must go to trial, and shall be retired into the place appointed, till the court call for him, then the lieutenant should tell him roundly, that if in his speeches he shall tax the king,† that the justice of England is, that he shall be taken away, and the evidence shall go on without him; and then all the people will cry *away with him:* and then it shall not be in the king's will to save his life, the people will be so set on fire.

Indorsed,
Memorial touching the course to be had in my lord of Somerset's arraignment.

* From the collections of the late Robert Stephens, Esq.

† The king's apprehension of being *taxed* by the earl of Somerset on his trial, though for what is not known, accounts in some measure for his Majesty's extreme uneasiness of mind till that trial was over, and for the management used by Sir Francis Bacon in particular, as appears from his letters, to prevail upon the earl to submit to be tried, and to keep him in temper during his trial, *lest he*, as the king expressed it in an apostyle on Sir Francis's letter of the 28th of April, 1616, *upon the one part commit unpardonable errors, and I on the other seem to punish him in the spirit of revenge.* See more on this subject in Mr. Mallett's *Life of the Lord Chancellor Bacon*, who closes his remarks with a reference to a letter of Somerset to the king, printed in the *Cabala*, and written in a high style of expostulation, and showing, through the affected obscurity of some expressions, that there was an important secret in his keeping, of which his Majesty dreaded a discovery. The earl and his lady were released from their confinement in the Tower in January, 1621-2, the latter dying August 23, 1632, leaving one daughter Anne, then sixteen years of age, afterwards married to William lord Russel, afterwards earl, and at last duke of Bedford. The earl of Somerset survived his lady several years, and died in July, 1645, being interred on the 17th of that month in the church of St. Paul's, Covent-Garden.

The Heads of the Charge against Robert Earl of Somerset.

Apostyle of the King.

Ye will doe well to remember lykewayes in your preamble, that insigne, that the only zeal to justice maketh me take this course. I have commaudit you not to expatiate, nor digresse upon any other points, that maye not serve clearlie for probation or inducement of that point, quhairof he is accused.

FIRST it is meant, that Somerset shall not be charged with any thing by way of aggravation, otherwise than as conduceth to the proof of the impoisonment.

For the proofs themselves, they are distributed into four:

The first to prove the malice, which Somerset bore to Overbury, which was the motive and ground of the impoisonment.

The second is to prove the preparations unto the impoisonment, by plotting his imprisonment, placing his keepers, stopping access of friends, &c.

The third is the acts of the impoisonments themselves.

And the fourth is acts subsequent, which do vehemently argue him to be guilty of the impoisonment.

For the first two heads, upon conference, whereunto I called serjeant Montagu and serjeant Crew, I have taken them two heads to myself; the third I have allotted to serjeant Montagu; and the fourth to serjeant Crew.

In the first of these, to my understanding, is the only tenderness: for on the one side, it is most necessary to lay a foundation, that the malice was a deep malice, mixed with fear, and not only matter of revenge upon his lordship's quarrel: for *periculum periculo vincitur;* and the malice must have a proportion to the effect of it, which was the impoisonment: so that if this foundation be not laid, all the evidence is weakened.

On the other side, if I charge him, or could charge him, by way of aggravation, with matters tending to disloyalty or treason, then he is like to grow desperate.

Therefore I shall now set down perspicuously what course I mean to hold, that your Majesty may be pleased to direct and correct it, preserving the strength of the evidence: and this I shall now do, but shortly and without ornament.

First, I shall read some passages of Overbury's letters, namely these: "Is this the fruit of nine years' love, common secrets, and common dangers?" In another letter: "Do not drive me to extremity to do that, which you and I shall be sorry for." In another letter: "Can you forget him, between whom such secrets of all kinds have passed?" &c.

Then will I produce Simcock, who deposeth from Weston's speech, that Somerset told Weston, that, "if ever Overbury came out of prison, one of them must die for it."

Then I will say what these secrets were. I mean not to enter into particulars, nor to charge him with disloyalty, because he stands to be tried for his life upon another crime. But yet by some taste, that I shall give to the peers in general, they may conceive of what nature those secrets may be. Wherein I will take it for a thing notorious, that Overbury was a man, that always carried himself insolently, both towards the queen, and towards the late prince: that he was a man, that carried Somerset on in courses separate and opposite to the privy council: that he was a man of nature fit to be an incendiary of a state; full of bitterness and wildness of speech and project: that he was thought also lately to govern Somerset, insomuch that in his own letters he vaunted, "that from him proceeded Somerset's fortune, credit, and understanding."

This course I mean to run in a kind of generality, putting the imputations rather upon Overbury than Somerset; and applying it, that such a nature was like to hatch dangerous secrets and practices. I mean to show likewise what jargons there were and cyphers between them, which are great badges of secrets of estate, and used either by princes and their ministers of state, or by such as practise against princes. That your Majesty was called *Julius* in respect of your empire; the queen *Agrippina*, though Somerset now saith it was *Livia*, and that my lady of Suffolk was *Agrippina;* the bishop of Canterbury, *Unctius;* Northampton, *Dominic;* Suffolk, first *Lerma*, after *Wolsey;* and many others; so as it appears they made a play both of your court and kingdom; and that their imaginations wrought upon the greatest men and matters.

Neither will I omit Somerset's breach of trust to your Majesty, in trusting Overbury with all the despatches, things, wherewith your council of estate itself was not many times privy or acquainted: and yet this man must be admitted to them, not cursorily, or by glimpses, but to have them by him, to copy them, to register them, to table them, &c.

Apostyle of the king.

This evidence cannot be given in without making me his accuser, and that upon a very slight ground. As for all the subsequent evidences, they are all so little evident, as una litura *may serve thaime all.*

I shall also give in evidence, in this place, the slight account of that letter, which was brought to Somerset by Ashton, being found in the fields soon after the late prince's death, and was directed to Antwerp, containing these words, "that the first branch was cut from the tree, and that he should, ere long, send happier and joyfuller news."

Nothing to Somerset, and declared by Franklin after condemnation.

Which is a matter I would not use, but that my lord Coke, who hath filled this part with many frivolous things, would think all lost, except he hear somewhat of this kind. But this it is to come to the leavings of a business.

And for the rest of that kind, as to speak of that particular, that Mrs. Turner did at Whitehall show to Franklin the man, who, as she said, poisoned the prince, which, he says, was a physician with a red beard.

Nothing to Somerset, and a loose conjecture.

That there was a little picture of a young man in white wax, left by Mrs. Turner with Forman the conjurer, which my lord Coke doubted was the prince.

No better than a gazette, or passage of Gallo Belgicus.

That the viceroy of the Indies at Goa reported to an English factor, that prince Henry came to an untimely death by a mistress of his.

Nothing yet proved against Lowbell.

That Somerset, with others, would have preferred Lowbell the apothecary to prince Charles.

Nothing to Somerset.

That the countess laboured Forman and Gresham, the conjurers, to inforce the queen by witchcraft to favour the countess.

Declared by Franklin after condemnation.

That the countess told Franklin, that when the queen died, Somerset should have Somerset-house.

Nothing to Somerset.

That Northampton said, the prince, if ever he came to reign, would prove a tyrant.

Nothing to Somerset.

That Franklin was moved by the countess to go to the Palsgrave, and should be furnished with money.

The particular reasons, why I omit them, I have set in the margin; but the general is partly to do a kind of right to justice, and such a solemn trial, in not giving that in evidence, which touches not the delinquent, or is not of weight; and partly to observe your Majesty's direction, to give Somerset no just occasion of despair or flushes.

But I pray your Majesty to pardon me, that I have troobled your Majesty with repeating them, lest you should hear hereafter, that Mr. Attorney hath omitted divers material parts of the evidence.

Indorsed,

Somerset's business and charge, with his Majesty's postiles.

TO SIR GEORGE VILLIERS.

Sir,

Your man made good haste; for he was with me yesterday about ten of the clock in the forenoon. Since I held him.

The reason, why I set so small a distance of time between the use of the little charm, or, as his Majesty better terms it, *the evangile*,* and the day of his trial,† notwithstanding his majesty's being so far off, as advertisement of success and order thereupon could not go and come between, was chiefly, for that his Majesty, from whom the overture of that first moved, did write but of a few hours, that this should be done, which I turned into days. Secondly, because the hope I had of effect by that mean, was rather of attempting him at his arraignment, than of confession before his arraignment. But I submit it to his Majesty's better judgment.

The person, by your first description, which was without name, I thought had been meant of Packer:‡ but now I perceive it is another, to me unknown, but as it seemeth, very fit. I doubt not but he came with sufficient warrant to Mr. Lieutenant to have access. In this I have no more to do, but to expect to hear from his Majesty how this worketh.

The letter from his Majesty to myself and the serjeants I have received, such as I wished; and I will speak with the commissioners, that he may, by the lieutenant, understand his Majesty's care of him, and the tokens herein of his Majesty's compassion towards him.

I ever had a purpose to make use of that circumstance, that Overbury, the person murdered, was his Majesty's prisoner in the Tower; which indeed is a strong pressure of his Majesty's justice. For Overbury is the first prisoner murdered in the Tower, since the murder of the young princes by Richard the third, the tyrant.

I would not trouble his Majesty with any points of preamble, nor of the evidence itself, more than that part nakedly, wherein was the tenderness, in which I am glad his Majesty, by his postils, which he returned to me, approveth my judgment.

Now I am warranted, I will not stick to say openly, I am commanded, not to exasperate, nor to aggravate the matter in question of the impoisonment with any other collateral charge of disloyalty, or otherwise; wherein, besides his Majesty's principal intention, there will be some use to save the former bruits of Spanish matters.

There is a direction given to Mr. Lieutenant by my lord chancellor and myself, that as yesterday Mr. Whiting§ the preacher, a discreet man, and one that was used to Helwisse, should preach before the lady,‖ and teach her, and move her generally to a clear confession. That after the same preacher should speak as much to him at his going away in private: and so proof to be made, whether this good mean, and the last night's thoughts, will produce any thing. And that this day the lieutenant should declare to her the time of her trial, and likewise of his trial, and persuade her, not only upon christian duty, but as good for them both, that she deal clearly touching him, whereof no use can be made, nor need to be made, for evidence, but much use may be made for their comfort.

It is thought, at the day of her trial the lady will confess the indictment; which if she do, no evidence ought to be given. But because it shall not be a dumb show, and for his Majesty's honour in so

* Cicero, Epist. ad Atticum, Lib. XIII. Ep. 40. uses this word, *εὐαγγέλια*; which signifies both good news, and the reward given to him who brings good news. See Lib. II. Epist. 3.

† The earl of Somerset's.

‡ John, of whom there are several letters in Winwood's *Memorials*, Vol. II.

§ John Whiting, D. D. rector of St. Martin Vintry, in London, and Vicar of East-Ham in Essex, prebendary of Faldstreet in the church of St. Paul's, and chaplain to king James I. He attended Sir Gervase Helwisse, who had been lieutenant of the Tower, at his execution upon Tower-Hill, on Monday the 20th of November, 1615, for the murder of Sir Thomas Overbury.

‖ Frances, countess of Somerset.

solemn an assembly, I purpose to make a declaration of the proceedings of this great work of justiee, from the beginning to the end, wherein, nevertheless, I will be eareful no ways to prevent or discover the evidence of the next day.

In this my lord chancellor and I have likewise used a point of providence: for I did forecast, that if in that narrative, by the connexion of things, any thing should be spoken, that should show him guilty, she might break forth into passionate protestations for his clearing; whieh, though it may be justly made light of, yet it is better avoided. Therefore my lord chancellor and I have devised, that upon the entrance into that declaration she shall, in respect of her weakness, and not to add farther affliction, be withdrawn.

It is impossible, neither is it needful, for me, to express all the particnlars of my care in this business. But I divide myself into all cogitations as far as I can foresee; being very glad to find, that his Majesty doth not only neeept well of my care and advices, but that he applieth his directions so fitly, as guideth me from time to time.

I have received the commissions signed.

I am not forgetful of the goods and estate of Somerset, as far as is seasonable to inquire at this time. My lord Coke taketh upon him to answer for the jewels, being the chief part of his movable value: and this, I think, is done with his Majesty's privity. But my lord Coke is a good man to answer for it.

God ever preserve and prosper you. I rest

Your true and devoted servant,

FR. BACON.

May 10, Friday at 7 of the clock in the morning [1616].

The Charge of the Attorney-General, Sir FRANCIS BACON, *against* FRANCES, *Countess of* SOMERSET, *intended to have been spoken by him at her arraignment, on Friday, May* 24, 1616, *in case she had pleaded not guilty.**

IT may please your Grace, my lord high steward of England,† and you my lords the peers,

You have heard the indictment against this lady well opened; and likewise the point in law, that might make some doubt, declared and solved; wherein certainly the poliey of the law of England is much to be esteemed, which requireth and respecteth form in the indictment, and substance in the proof.

This scruple it may be hath moved this lady to plead not guilty, though for the proof I shall not need much more than her own confession, whieh she hath formerly made, free and voluntary, and therein given glory to God and justiee. And certainly confession, as it is the strongest foundation of justice, so it is a kind of corner-stone, whereupon justice and mercy may meet.

The proofs, which I shall read in the end for the ground of your verdict and sentenee, will be very short; and, as mueh as may, serve to satisfy your honours and eonsciences for the eonviction of this lady, without wasting of time in a case clear and confessed; or ripping up guiltiness against one, that hath prostrated herself by confession; or preventing or deflowering too much of the evidence. And therefore the occasion itself doth admonish me to spend this day rather in deelaration, than in evidence, giving God and the king the honour, and your lordships and the hearers the contentment, to set before you the proceeding of this excellent work of the king's justice, from the beginning to the end: and so to conclude with the reading the confessions and proofs.

My lords, this is now the seeond time‡ within the spaee of thirteen years reign of our happy sovereign, that this high tribunal-seat of justice, ordained for the trial by peers, hath been opened and erected; and that, with a rare event, supplied and exercised by one and the same person; whieh is a great honour to you, my lord steward.

In all this mean time, the king hath reigned in his white robe, not sprinkled with any drop of blood of any of his nobles of this kingdom. Nay, such hath been the depths of his mercy, as even those noblemen's bloods, (against whom the proeeeding was at Winchester,) Cobham and Grey, were attainted and corrupted, but not spilt or taken away: but that they remained rather spectacles of justice in their continual imprisonment, than monuments of justice in the memory of their suffering.

It is true, that the objects of his justice then and now were very differing. For then, it was the revenge of an offence against his own person and crown, and upon persons that were malcontents, and contraries to the state and government. But now, it is the revenge of the blood and death of a particnlar subject, and the cry of a prisoner. It is upon persons, that were highly in his favour; whereby his Majesty, to his great honour, hath showed to the world, as if it were written in a sunbeam, that he is truly the lieutenant of Him, with whom there is no respect of persons; that his affections royal are above his affeetions private; that his favours and nearness about him are not like popish sanctuaries to privilege malefactors; and that his being the best master of the world doth not let him from being the best king of the world. His people, on the other side, may say to themselves, "I will lie down in peace; for God and the king and the law protect me against great and small." It may be a diseipline also to great men, especially such as are swoln in fortunes from small beginnings, that the king is as well able to level mountains, as to fill valleys, if sneh be their desert.

But to come to the present ease; the great frame of justiee, my lords, in this present action, hath a

* She pleaded guilty, on which occasion the attorney-general spoke a charge somewhat different from this, printed in his works.

† Thomas Egerton, viscount Ellesmere, lord high chancellor.

‡ The first time was on the trials of the lords Cobham and Grey, in November, 1603.

vault, and it hath a stage: a vault, wherein these works of darkness were contrived; and a stage with steps, by which they were brought to light. And therefore I will bring this work of justice to the period of this day; and then go on with this day's work.

Sir Thomas Overbury was murdered by poison in the 15th of September, 1613, 11 *Reg.* This foul and cruel murder did, for a time, cry secretly in the ears of God: but God gave no answer to it otherwise than by that voice, which sometimes he useth, which is *vox populi*, the speech of the people. For there went then a murmur, that Overbury was poisoned; and yet this same submiss and soft voice of God, the speech of the vulgar people, was not without a counter-tenor or counter-blast of the devil, who is the common author both of murder and slander: for it was given out, that Overbury was dead of a foul disease, and his body, which they had made a *corpus Judaicum* with their poisons, so as it had no whole part, must be said to be leprosed with vice, and so his name poisoned as well as his body. For as to dissoluteness, I never heard the gentleman noted with it: his faults were jasuleney, and turbulency, and the like of that kind: the other part of the soul, not the voluptuous.

Meantime, there was some industry used, of which I will not now speak, to lull asleep those, that were the revengers of blood; the father and the brother of the murdered. And in these terms things stood by the space almost of two years: during which time, God so blinded the two great procurers, and dazzled them with their own greatness, and bind and nail fast the actors and instruments, with security upon their protection, as neither the one looked about them, nor the other stirred or fled, nor were conveyed away; but remained here still, as under a privy arrest of God's judgments; insomuch as Franklin, that should have been sent over to the Palsgrave with good store of money, was, by God's providence, and the accident of a marriage of his, diverted and stayed.

But about the beginning of the progress last summer, God's judgments began to come out of their depths: and as the revealing of murders is commonly such, as a man may say, *a Domino hoc factum est*; it is God's work, and it is marvellous in our eyes; so in this particular it was most admirable; for it came forth by a compliment and matter of courtesy.

My lord of Shrewsbury,* that is now with God, recommended to a counsellor of state, of especial trust by his place, the late lieutenant Helwisse,† only for acquaintance as an honest worthy gentleman; and desired him to know him, and to be acquainted with him. That counsellor answered him civilly, that my lord did him a favour: and that he should embrace it willingly; but he must let his lordship know, that there did lie a heavy imputation upon that gentleman, Helwisse; for that Sir Thomas Overbury, his prisoner, was thought to have come to a violent and untimely death. When this speech was reported back by my lord of Shrewsbury to Helwisse, *perculit illica animum*, he was stricken with it; and being a politic man, and of likelihood doubting, that the matter would break forth at one time or other, and that others might have the start of him, and thinking to make his own ease by his own tale, resolved with himself, upon this occasion, to discover to my lord of Shrewsbury and that counsellor, that there was an attempt, whereto he was privy, to have poisoned Overbury by the hands of his under-keeper, Weston; but that he checked it, and put it by, and dissuaded it, and related so much to him indeed: but then he left it thus, that was but an attempt, or untimely birth, never executed; and, as if his own fault had been no more, but that he was honest in forbidding, but fearful of revealing and impeaching or accusing great persons: and so with this fine point thought to save himself.

But that great counsellor of state wisely considering, that by the lieutenant's own tale it could not be simply a permission or weakness; for that Weston was never displaced by the lieutenant, notwithstanding that attempt; and coupling the sequel by the beginning, thought it matter fit to be brought before his Majesty, by whose appointment Helwisse set down the like declaration in writing.

Upon this ground, the king played Solomon's part, *Gloria Dei celare rem; et Gloria Regis investigare rem;* and sets down certain papers of his own hand, which I might term to be *clares justitiæ*, keys of justice; and may serve for a precedent both for princes to imitate, and for a direction for judges to follow: and his Majesty carried the balance with a constant and steady hand, evenly and without prejudice, whether it were a true accusation of the one part, or a practice and factious device of the other: which writing, because I am not able to express according to the worth thereof, I will desire your lordship anon to hear read.

This excellent foundation of justice being laid by his Majesty's own hand, it was referred unto some counsellors to examine farther, who gained some degrees of light from Weston, but yet left it imperfect.

After it was referred to Sir Edward Coke, chief justice of the king's bench, as a person best practised in legal examinations, who took a great deal of indefatigable pains in it, without intermission, having, as I have heard him say, taken at least three hundred examinations in this business.

But these things were not done in a corner. I need not speak of them. It is true, that my lord

* Gilbert, earl of Shrewsbury, knight of the garter, who died May 8, 1616.

† Sir Gervase Helwisse, appointed lieutenant of the Tower, upon the removal of Sir William Waad, on the 6th of May, 1613. [*Reliquiæ Wottonianæ*, p. 412, 3d edit. 1672.] Mr. Chamberlain, in a MS. letter to Sir Dudley Carleton, dated at London, May 13, 1613, speaks of Sir Gervase's promotion in these terms: "One Sir Gervase Helwisse of Lincolnshire, somewhat an unknown man, is put into the place [of Sir W. Waad's] by the favour of the lord chamberlain [earl of Somerset] and his lady. The gentleman is of too mild and gentle a disposition for such an office. He is my old friend and acquaintance in France, and lately renewed in town, where he hath lived past a year, nor followed the court more a day." Sir Henry Wotton, in a letter of the fourteenth of May, 1613, [*ubi supra*, p. 13.] says, that Sir Gervase had been before *one of the pensioners*.

chief justice, in the dawning and opening of the light, finding, that the matter touched upon these great persons, very discreetly became suitor to the king to have greater persons than his own rank joined with him. Whereupon, your lordship, my lord high steward of England, to whom the king commonly resorteth *in arduis*, and my lord steward of the king's house, and my lord Zoueh, were joined with him.

Neither wanted there this while practice to suppress testimony, to deface writings, to weaken the king's resolntion, to slander the jostice, and the like. Nay, when it eame to the first solemn act of justice, which was the arraignment of Weston, he had his lesson to stand mute; which had arrested the wheel of justice. But this dumb devil, by the means of some discreet divines, and the potent eharm of justiee, together, was cast out. Neither did this poisonous adder stop his ear to those charms, but relented, and yielded to his trial.

Then follow the proceedings of justice agninst the other offenders, Turner, Helwisse, Franklin.

But all these being but the organs and instruments of this fact, the actors nnd not the aothors, justice could not have been crowned without this last aet against these great persons. Else Weston's censure or prediction might have been verified, when he said, he hoped the small fliea should not be caught, and the great escape. Wherein the king being in great straits, between the defacing of his honour and of his creature, hath, according as he useth to do, chosen the better part, reserving always mercy to himself.

The time also of this justice hath had its true motions. The time until this lady's deliverance was due unto honour, christianity, and humanity, in respect of her great belly. The time since was due to another kind of deliveranee too; which was, that some causes of estate, that were in the womh, might likewise be brought forth, not for matter of justice, but for reason of state. Likewise this last procrastination of days had the like weighty grounds and eaoses. And this is the true and brief representation of this extreme work of the king's justice.

Now for the evidence against this lady, I am sorry I must rip it up. I shall first show you the purveyance or provisions of the poisons; that they were seven in number brought to this lady, and by her billetted and laid up till they might be used; and this done with an oath or vow of secrecy, which is like the Egyptian darkness, a gross and palpable darkness, that may be felt.

Secondly, I shall show you the exhibiting and sorting of this same number or volley of poisons. White arsenic was fit for salt, because it is of like body and colour. The poison of great spiders, and of the venomous fly eantharides, was fit for pigs' saoce, or partridge saucc, because it resembled pepper. As for mercury-water and other poisons they might be fit for tarts, which is a kind of hotch-pot, wherein no one colour is so proper: and some of these were delivered hy the hands of this lady, and some by her direction.

Thirdly, I shall prove and observe nnto you the cautions of these poisons; that they might not be too swift, lest the world should startle at it by the suddenness of the despatch: but they must abide long in the hody, and work by degrees: and for this purpose there must be essays of them upon poor beasts, &e.

And lastly, I shall show yon the rewards of this impoisonment, first demanded by Weston, and denied, because the deed was not done; but after the deed done and perpetrated, that Overbury was dead, then performed and paid to the value of 180*l*.

And so without farther aggravation of that, which in itself benrs its own tragedy, I will conelude with the confessions of this lady herself, whieh is the strongest support of justice; and yet is the foot-stool of mercy. For as the Scripture says, "mercy and truth have kissed each other;" there is no meeting or greeting of mercy, till there be a confession, or trial of truth. For these read,

Franklin, November 16,
Franklin, November 17,
Rich. Weston, October 1,
Rich. Weston, October 2,
Will. Weston, October 2,
Richard Weston, October 3,
Helwisse, October 2,
The Countess's letter withoot date.
The Countess's confession, January 8.

SIR FRANCIS BACON TO THE KING.*

IT MAY PLEASE YOUR EXCELLENT MAJESTY,

ACCOANING to your Majesty's refcrence signified by Sir Roger Wilbraham, I have considered of the petition of Sir Gilbert Houghton, your Majesty's servant, for a licence of sole transportation of tallow, butter, and hides, &c. out of your realm of Ireland; and have had conference with the lord Chichester, late lord deputy of Ireland, and likewise with Sir John Davies, your Majesty's attorney there: And this is that which I find:

First, that hides and skins may not be meddled withal, being a staple eommodity of the kingdom, wherein the towns are principally interested.

That for tallow, butter, beef, not understanding it of live cattle, and pipe-staves, for upon these things we fell, although they were not all contained in the petition, but in respect hides were more worth than all the rest, they were thought of by way of some supply; these eommodities are such, as the kingdom may well spare, and in that respect fit to be transported; wherein nevertheless some eonsideratiun may be had of the profit, that shall be taken upon the licence. Neither do I find, that the farmers of the customs there, of which some of them were before me, did much stand upon it, but seemed rnther to give way to it.

I find also, that at this time all these eommodities are free to be transported by proclamation, so as no profit can be made of it, except there be first a restraint; which restraint I think fitter to be by

* From the collections of the late Robert Stephens, Esq.

some prohibition in the letters patents, than by any new proclamation; and the said letters patents to pass rather here, than there, as it was in the licence of wines granted to the lady Arbella; but then those letters patents to be enrolled in the chancery of Ireland, whereby exemplifications of them may be taken to be sent to the ports.

All which nevertheless I submit to your Majesty's better judgment.

Your Majesty's most humble bounden subject and servant,

5 June, 1616. FR. BACON.

MR. TOBIE MATTHEW, TO SIR FRANCIS BACON, ATTORNEY-GENERAL.

MAY IT PLEASE YOUR HONOUR,

SUCH as know your honour, may congratulate with you the favour, which you have lately received from his Majesty, of being made a counsellor of state;* but as for me, I must have leave to congratulate with the council-table, in being so happy as to have you for an assessor. I hope these are but beginnings, and that the marriage, which now I perceive that fortune is about to make with virtue, will be consummate in your person. I cannot dissemble, though I am ashamed to mention, the excessive honour, which you have vouchsafed to do unto my picture. But shame ought not to be so hateful as sin; and without sin I know not how to conceal the extreme obligation into which I am entered thereby, which is incomparably more than I can express, and no less than as much as I am able to conceive. And as the copy is more fortunate than the original, because it hath the honour to be under your eye; so the original being much more truly yours than the copy can be, aspires by having the happiness to see you, to put the picture out of countenance.

I understand by Sir George Petre,† who is arrived here at the Spa, and is so wise as to honour you extremely, though he have not the fortune to be known to your honour, that he had heard how my lord of Canterbury had been moved in my behalf; and that he gave way unto my return. This, if it be true, cannot have happened without some endeavour of your honour; and therefore, howsoever I have not been particularly advertised, that your honour had delivered my letter to his Grace; yet now methinks I do as good as know it, and dare adventure to present you with my humblest thanks for the favour. But the main point is, how his Majesty should be moved: wherein my friends are straining courtesy; and unless I have your honour for a master of the ceremonies, to take order, who shall begin, all the benefit, that I can reap by this negotiation, will be to have the reputation of little judgment in attempting that which I was not able to obtain; and that howsoever I have shot fair, I know not how to hit the mark. I have been directed by my lord Roos, who was the first mover of this stone, to write a letter, which himself would deliver to the master of the horse,‡ who doth me the honour to wish me very well: and I have obeyed his lordship, and beseech your honour, that you will be pleased to prevent, or to accompany, or second it with your commendation, lest otherwise the many words, that I have used, have but the virtue of a single 0, or cypher. But indeed, if I had not been over-weighed by the authority of my lord Roos's commandment, I should rather have reserved the master of the horse's favour to some other use afterward. In conformity whereof, I have also written to his lordship; and perhaps he will thereupon forbear to deliver my letter to the master of the horse: whereas, I should be the less sorry, if your honour's self would not think it inconvenient to make the suit of my return to his Majesty; in which case I should, to my extreme contentment, have all my obligations to your honour only.

His Majesty's being now in progress will give some impediment to my suit, unless either it be my good fortune, that your honour do attend his person; or else that you will be pleased to command some one of the many servants your honour hath in court, to procure the expedition of my cause, wherein I can foresee no difficulty, when I consider the interest, which your honour alloweth me in your favour, and my innocent carriage abroad for so many years; whereunto all his Majesty's ministers, who have known me, I am sure, will give an attestation, according to the contents of my letter to his Grace of Canterbury.

If I durst, I would most humbly entreat your honour to be pleased, that some servant of yours may speedily advertise me, whether or no his Grace of Canterbury hath received my letter; what his answer was; and what I may hope in this my suit. I remember, that the last words, which I had the honour to hear from your mouth, were, that if I continued any time free both from disloyalty and priesthood, your honour would be pleased to make yourself the intercessor for my return. Any letter sent to Mr. Trumball for me will come safely and speedily to my hands.

The term doth now last with your honour all the year long; and therefore the sooner I make an end, the better service I shall do you. I presume to kiss your hands, and continue

Your honour's most entirely, and humbly ever at commandment,

TOBIE MATTHEW.

Spa, this 16th of July, *stylo novo*, 1616.

POSTSC. It is no small penance that I am forced to apparel my mind in my man's hand, when it speaks to your honour. But God Almighty will have it so, through the shaking I have in my right hand; and I do little less than want the use of my fore finger.

* Sir Francis Bacon was sworn at Greenwich of the privy council, June 9, 1616.

† Grandson of John, the first lord Petre, and son of William, second baron of that name.

‡ Sir George Villiers, who was appointed to that office, Jan. 4, 1615-16.

TO SIR FRANCIS BACON, ATTORNEY-GENERAL.

IT MAY PLEASE YOUR HONOUR,

I PRESUMED to importune your honour with a letter of the 16th of this month, whereby I signified how I had written to the master of the horse, that he would be pleased to move his Majesty for my return into England; and how that I had done it upon the direction of my lord Roos, who offered to be the deliverer thereof. Withal I told your honour, that I expressed thereby an act rather of obedience than prudence, as not holding his lordship a fit man, whom, by presenting that letter, the king might peradventure discover to be my favourer in this business. In regard whereof I besought him, that, howsoever I had complied with his command in writing, yet he would forbear the delivery; and I gave him divers reasons for it. And both in contemplation of those reasons, as also of the hazard of miscarriage, that letters do run into between these parts and those, I have now thought fit to send your honour this enclosed, accompanied with a most humble entreaty, that you will be pleased to put it into the master of the horse's hands, with such a recommendation as you can give. Having read it, your honour may be pleased to seal it: and if his honour have received the former by other hands, this may serve in the nature of a duplicate or copy: if not, it may be the original. And indeed, though it should be but the copy, if it may be touched by your honour, it would have both greater grace and greater life, than the principal itself; and therefore, howsoever, I humbly pray, that this may be delivered.

If my business should be remitted to the council table, which yet, I hope, will not be, I am most a stranger to my lord chancellor and my lord chamberlain, * of whom yet I trust, by means of your honour's good word in my behalf, that I shall receive no impediment.

The bearer, Mr. Becher,† can say what my carriage hath been in France under the eye of several ambassadors; which makes me the more glad to use him in the delivery of this letter to your honour: and if your honour may be pleased to command me any thing, he will convey it to my knowledge.

I hear, to my unspeakable joy of heart, how much power you have with the master of the horse; and how much immediate favour you have also with his most excellent Majesty: so that I cannot but hope for all good success, when I consider withal the protection, whereinto you have been pleased to take me, the

Most humble and most obliged of your honour's many servants,

TOBIE MATTHEW.

Spa, this last of July, *stylo novo*, 1616.

* William, earl of Pembroke.

† William, afterwards knighted. He had been secretary to Sir George Calvert, ambassador to the court of France, and was afterwards agent at that court; and at last made clerk of the council.

TO SIR FRANCIS BACON, ATTORNEY-GENERAL.

MAY IT PLEASE YOUR HONOUR,

I HAVE been made happy by your honour's noble and dear lines of the two and twentieth of July; and the joy that I took therein, was only kept from excess by the notice they gave me of some intentions and advices of your honour, which you have been pleased to impart to others of my friends, with a meaning, that they should acquaint me with them; whereof they have entirely failed. And therefore if still it should import me to understand what they were, I must be enforced to beg the knowledge of them from yourself. Your honour hath, by this short letter, delivered me otherwise from a great deal of laborious suspense. For, besides the great hope you give me of being so shortly able to do you reverence, I am come to know, that by the diligence of your favour towards me, my lord of Canterbury hath been drawn to give way, and the master of the horse hath been induced to move. That motion, I trust, will be granted howsoever; but I should be out of fear thereof, if when he moves the king, your honour would cast to be present; that if his Majesty should make any difficulty, some such reply, as is wont to come from you, in such cases, may have power to discharge it.

I have been told rather confidently than credibly, for in truth I am hardly drawn to believe it, that Sir Henry Goodere should under-hand, upon the reason of certain accounts, that run between him and me, wherein I might justly lose my right, if I had so little wit, as to trouble your honour's infinite business, by a particular relation thereof, oppose himself to my return; and perform ill offices in conformity of that unkind affection, which he is said to bear me. But, as I said, I cannot absolutely believe it, though yet I could not so far despise the information, as not to acquaint your honour with what I heard. I offer it not as a ruled case, but only as a query, as I have also done to Mr. Secretary Lake, in this letter, which I humbly pray your honour may be given him, together with your best advice, how my business is to be carried in this conjuncture of his Majesty's drawing near to London, at which time I shall receive my sentence. I have learned from your honour to be confident, that it will be pronounced in my favour; but if the will of God should be otherwise, I shall yet frame for myself a good proportion of contentment; since, howsoever I was so unfortunate, as that I might not enjoy my country, yet withal, I was so happy, as that my return thither was desired and negotiated by the affection, which such a person as yourself vouchsafed to bear me. When his Majesty shall be moved, if he chance to make difficulty about my return, and offer to impose any condition, which, it is known, I cannot draw myself to digest; I desire it may be remembered, that my case is common with many of his subjects, who

breathe in the air of their country, and that my case is not common with many, since I have lived so long abroad with disgrace at home; and yet have ever been free not only from suspicion of practice, but from the least dependence upon foreign princes. My king is wise; and I hope, that he hath this just mercy in store for me. God Almighty make and keep your honour ever happy, and keep me so in his favour, as I will be sure to continue

Your honour's ever most obliged and devoted servant,

TOBIE MATTHEW.

Antwerp, this first of Sept. *stylo novo*, 1616.

POSTSCRIPT.

MAY IT PLEASE YOUR HONOUR,

I HAVE written to Sir John Digby; and I think he would do me all favour, if he were handsomely put upon it. My lady of Pembroke * hath written, and that very earnestly, to my lord chamberlain in my behalf.

This letter goes by Mr. Robert Garret, to whom I am many ways beholden, for making me the best present, that ever I received, by delivering me your honour's last letter.

SIR FRANCIS BACON TO THE KING.

MAY IT PLEASE YOUR EXCELLENT MAJESTY,

BECAUSE I have ever found, that in business the consideration of persons, who are *instrumenta animata*, is no less weighty than of matters, I humbly pray your Majesty to peruse this enclosed paper, containing a diligence, which I have used *in omnem eventum*. If Towerson,† as a passionate man, have overcome himself in his opinion, so it is. But if his company make this good, then I am very glad to see in the case, wherein we now stand, there is this hope left, and your Majesty's honour preserved in the *entier*. God have your Majesty in his divine protection.

Your Majesty's most devoted, and most bounden servant, &c.

This is a secret to all men but my lord chancellor; and we go on this day with the new company, without discouraging them at all.

September 18, 1616.

Indorsed,

To the king, upon Towerson's propositions about the cloth business.

* Mary, widow of Henry, earl of Pembroke, who died January 19, 1601-2, daughter of Sir Henry Sidney, and sister of Sir Philip. She died September 25, 1621.

† Whose brother, captain Gabriel Towerson, was one of the English merchants executed by the Dutch at Amboyna, in 1623.

‡ Born about 1570, entered a commoner of Broad-Gate's hall, now Pembroke-College, Oxford, in 1585, whence he removed to the Middle Temple. In the parliament of 1601, he served for the borough of Barnstaple in Devon; and in the first parliament of king James I. he served for Cirencester in Gloucestershire; he was chosen recorder of London in September, 1618; but died in the last day of the following month. He was much esteemed by the men of learning and genius of that age.

RICHARD MARTIN, ESQ.‡ TO SIR FRANCIS BACON.

RIGHT HONOURABLE,

MY attendance at court two days, in vain, considering the end of my journey, was no less unto me, seeing thereby I made the gain of the overture and assurance of your honour's affection. These comforts have given new life and strength to my hopes, which before began to faint. I know, what your honour promiseth, you will undertake; and what you undertake, you seldom fail to compass; for such proof of your prudence and industry your honour hath of late times given to the swaying world. There is, to my understanding, no great intricacy in my affair, in which I plainly descry the course to the shore I would land at; to which neither I nor any other can attain, without the direction of our great master-pilot, who will not stir much without the beloved mate sound the way. Both these none can so well set awork as yourself, who have not only their ear, but their affection, and that with good right as I hope, in time, to good and public purpose. It is fit likewise, that your honour know all my advantages. The present incumbent is tied to me by firm promise, which gives an impediment to the competitors, whereof one already, according to the heaviness of his name and nature, *petit deorsum*. And though I be a bad courtier, yet I know the style of gratitude, and shall learn as I am instructed. Whatsoever your honour shall undertake for me, I will make good. Therefore I humbly and earnestly entreat your best endeavour, to assure to yourself and your master a servant, who both can and will, though as yet mistaken, advance his honour and service with advantage. Your love and wisdom is my last address; and on the real nobleness of your nature, whereof there is so good proof, stands my last hope. If I now find a stop, I will resolve it is *fatum Carthaginis*, and sit down in perpetual peace. In this business I desire all convenient silence; for though I can endure to be refused, yet it would trouble me to have my name blasted. If your honour return not, and you think it requisite, I will attend at court. Meantime, with all humble and hearty wishes for increase of all happiness, I kiss your honour's hands.

Your honour's humbly at command,

R. MARTIN.

September 27, 1616.

To the right honourable Sir Francis Bacon, knight, his Majesty's Attorney-General, and one of his Majesty's most honourable privy council, my singular patron at court.

TO THE KING.

IT MAY PLEASE YOUR MAJESTY,

THIS morning, according to your Majesty's commaud, we have had my lord chief justice of the king's bench* before us, we being assisted by all our learned council, except serjeant Crew, who was then gone to attend your Majesty. It was delivered unto him, that your Majesty's pleasure was, that we should receive an account from him of the performance of a commandment of your Majesty laid upon him, which was, that he should enter into a view and retraction of such novelties, and errors, and offensive conceits, as were dispersed in his *Reports:* that he had had good time to do it; and we doubted not but he had used good endeavour in it, which we desired now in particular to receive from him.

His speech was, that there were of his *Reports* eleven books, that contained about five hundred cases: that heretofore in other *Reports*, as namely, those of Mr. Plowden,† which he reverenced much, there hath been found nevertheless errors, which the wisdom of the time had discovered, and later judgments controlled; and enumerated to us four cases in Plowden, which were erroneous: and thereupon delivered in to us the enclosed paper, wherein your Majesty may perceive, that my lord is a happy man, that there should be no more errors in his five hundred cases, than in a few cases of Plowden. Your Majesty may also perceive, that your Majesty's direction to my lord chancellor and myself, and the travail taken by us and Mr. Solicitor,‡ in following and performing your direction, was not altogether lost; for that of those three heads, which we principally respected, which were the rights and liberties of the church, your prerogative, and the jurisdiction of other your courts, my lord hath scarcely fallen upon any, except it be the prince's case, which also yet seemeth to stand but upon the grammatical, of French and Latin.

My lord did also give his promise, which your Majesty shall find in the end of his writing, thus far in a kind of common place or thesis, that it was sin for a man to go against his own conscience, though erroneous, except his conscience be first informed and satisfied.

The lord chancellor in the conclusion signified to my lord Coke your Majesty's commandment, that until report made, and your pleasure thereupon known, he shall forbear his sitting at Westminster, &c. not restraining nevertheless any other exercise of his place of chief justice in private.

Thus having performed, to the best of our understanding, your royal commandment, we rest ever

Your Majesty's most faithful, and most bounden servants, &c.

* Sir Edward Coke.

† Edmund Plowden, born of an ancient family of that name at Plowden in Shropshire, who as he tells us himself in the preface to his *Reports*, in the twentieth year of his age, and the thirtieth of the reign of Henry VIII. *anno* 1539, began his study of the common law in the Middle Temple. Wood adds, *Ath. Oxon. Vol.* I. *col.* 219, that he spent three years in the study of arts, philosophy, and physic, at Cambridge, and four at Oxford, where in November 1552 he was admitted to practise chirurgery and physic. In 1557 he became summer reader of the Middle Temple, and three years after Lent reader, having been made serjeant, October 27, 1558. He died February 6, 1584-5, at the age of sixty-seven, in the profession of the Roman catholic faith, and lies interred in the Temple church.

‡ Sir Henry Yelverton.

THE LORD VISCOUNT VILLIERS TO SIR FRANCIS BACON, ATTORNEY-GENERAL.

SIR,

I HAVE acquainted his Majesty with my lord chancellor's and your report, touching my lord Coke; as also, with your opinion therein; which his Majesty doth dislike for these three reasons: first, because, that by this course you propound, the process cannot have a beginning, till after his Majesty's return; which, how long it may last after, no man knoweth. He therefore thinketh it too long and uncertain a delay, to keep the bench so long void from a chief justice. Secondly, although his Majesty did use the council's advice in dealing with the chief justice upon his other misdemeanors; yet he would be both to lessen his prerogative, in making the council judges, whether he should be turned out of his place or no, if the case should so require. Thirdly, for that my lord Coke hath sought means to kiss his Majesty's hands, and withal to acquaint him with some things of great importance to his service; he holdeth it not fit to admit him to his presence, before these points be determined, because that would be a grant of his pardon before he had his trial. And if those things, wherewith he is to acquaint his Majesty, be of such consequence, it would be dangerous and prejudicial to his Majesty, to delay him too long. Notwithstanding, if you shall advise of any other reasons to the contrary, his Majesty would have you, with all the speed you can, to send them unto him; and in the mean time to keep back his Majesty's letter, which is herein sent unto you, from my lord Coke's knowledge, until you receive his Majesty's further direction for your proceeding in his business.

And so I rest, your ever assured friend at command,

GEORGE VILLIERS.

Theobald's, the 3d of October, 1616.

To the right honourable Sir Francis Bacon, knight, his Majesty's Attorney-General, and of his most honourable privy council.

TO THE KING.

IT MAY PLEASE YOUR MOST EXCELLENT MAJESTY,

WE have considered of the letters, which we received from your Majesty, as well that written to us both, as that other written by my lord Villiers to me, the attorney, which I thought good to acquaint my lord chancellor withal, the better to give your Majesty satisfaction. And we most humbly desire your Majesty to think, that we are, and ever shall

be, ready to perform and obey your Majesty's directions; towards which the first degree is to understand them well.

In answer therefore to both the said letters, as well concerning matter as concerning time, we shall in all humbleness offer to your Majesty's high wisdom the considerations following:

First, we did conceive, that after my lord Coke was sequestered from the table and his circuits,* when your Majesty laid upon him your commandment for the expurging of his *Reports*, and commanded also our service to look into them, and into other novelties introduced into the government, your Majesty had in this your doing two principal ends:

The one, to see, if upon so fair an occasion he would make an expiation of his former faults; and also show himself sensible of those things in his *Reports*, which he could not but know were the likest to be offensive to your Majesty.

The other, to perform *de vero* this right to your crown and succession, and your people also; that those errors and novelties might not run on, and authorize by time, but might be taken away, whether he consented to it or no.

But we did not conceive your Majesty would have had him charged with those faults of his book, or those other novelties; but only would have had them represented to you for your better information.

Now your Majesty seeth what he hath done, you can better judge of it than we can. If, upon this probation added to former matters, your Majesty think him not fit for your service, we must in all humbleness subscribe to your Majesty, and acknowledge that neither his displacing, considering he holdeth his place but during your will and pleasure, nor the choice of a fit man to be put in his room, are council-table matters, but are to proceed wholly from your Majesty's great wisdom and gracious pleasure. So that in this course, it is but the signification of your pleasure, and the business is at an end as to him. Only there remaineth the actual expurgation or animadversions of the books.

But if your Majesty understand it, that he shall be charged, then, as your Majesty best knoweth, justice requireth, that he be heard and called to his answer, and then your Majesty will be pleased to consider, before whom he shall be charged; whether before the body of your council, as formerly he was, or some selected commissioners; for we conceive your Majesty will not think it convenient it should be before us two only. Also the manner of his charge is considerable, whether it shall be verbal by your learned council, as it was last; or whether, in respect of the multiplicity of matters, he shall not have the collections we have made in writing, delivered to him. Also the matter of his charge is likewise considerable, whether any of those points of novelty, which by your Majesty's commandment we collected, shall be made part of his charge; or only the faults of his books, and the prohibitions and *habeas corpus*, collected by my lord of Canterbury. In all which course we foresee length of time, not so much for your learned council to be prepared, for that is almost done already, but because himself, no doubt, will crave time of advice to peruse his own books, and to see, whether the collections be true, and that he be justly charged; and then to produce his proofs, that those things, which he shall be charged with, were not conceits or singularities of his own, but the acts of court, and other like things, tending to excusation or extenuation; wherein we do not see, how the time of divers days, if not of weeks, can be denied him.

Now for time, if this last course of charging him be taken, we may only inform your Majesty thus much, that the absence of a chief justice, though it should be for a whole term, as it hath been often upon sickness, can be no hinderance to common justice. For the business of the king's bench may be despatched by the rest of the judges; his voice in the star-chamber may be supplied by any other judge, that my lord chancellor shall call; and the trials by *nisi prius* may be supplied by commission.

But as for those great matters of discovery, we can say nothing more than this, that either they are old or new. If old, he is to blame for having kept them so long: if new, or whatsoever, he may advertise your Majesty of them by letter, or deliver them by word to such counsellor as your Majesty will assign.

Thus we hope your Majesty will accept of our sincerity, having dealt freely and openly with your Majesty, as becometh us: and when we shall receive your pleasure and direction, we shall execute and obey the same in all things: ending with our prayers for your Majesty, and resting

Your Majesty's most faithful, and most bounden servants,

T. ELLESMERE, CANC.
FR. BACON.

October 6, 1616.

REMEMBRANCES OF HIS MAJESTY'S DECLARATION, TOUCHING THE LORD COKE.

That although the discharging and removing of his Majesty's officers and servants, as well as the choice and advancement of men to place, be no council-table matters, but belong to his Majesty's princely will and secret judgment; yet his Majesty will do his council this honour, that in his resolutions of that kind, his council shall know them first before others, and shall know them accompanied by their causes, making as it were a private manifesto, or revealing of himself to them without parables.

Then to have the report of the lords touching the business of the lord Coke, and the last order of the council read.

That done his Majesty farther to declare, that he might, upon the same three grounds in the order

* On the 30th of June, 1616. *Camdeni Annales Regis Jacobi I.* p. 19; and Peck, *Desiderata Curiosa*, Vol. I. Lib. vi. p. 18

mentioned, of deceit, contempt, and slander of his government, very justly have proceeded then, not only to have put him from his place of chief justice, but to have brought him in question in the star-chamber, which would have been his utter overthrow; but then his Majesty was pleased for that time only to put him off from the council-table, and from the public exercise of his place of chief justice, and to take farther time to deliberate.

That in his Majesty's deliberation, besides the present occasion, he had in some things looked back to the lord Coke's former carriage, and in some things looked forward, to make some farther trial of him.

That for things passed, his Majesty had noted in him a perpetual turbulent carriage, first towards the liberties of his church and estate ecclesiastical; towards his prerogative royal, and the branches thereof; and likewise towards all the settled jurisdictions of all his other courts, the high commission, the star-chamber, the chancery, the provincial councils, the admiralty, the duchy, the court of requests, the commission of inquiries, the new boroughs of Ireland; in all which he had raised troubles and new questions; and lastly, in that, which might concern the safety of his royal person, by his exposition of the laws in cases of high treason.

That, besides the actions themselves, his Majesty in his princely wisdom hath made two special observations of him; the one, that he having in his nature not one part of those things, which are popular in men, being neither civil, nor affable, nor magnificent, he hath made himself popular by design only, in pulling down government. The other, that whereas his Majesty might have expected a change in him, when he made him his own, by taking him to be of his council, it made no change at all, but to the worse, he holding on all his former channel, and running separate courses from the rest of his council, and rather busying himself in casting fears before his council, concerning what they could not do, than joining his advice what they should do.

That his Majesty, desirous yet to make a farther trial of him, had given him the summer's vacation to reform his *Reports*, wherein there be many dangerous conceits of his own uttered for law, to the prejudice of his crown, parliament, and subjects; and to see, whether by this he would in any part redeem his fault. But that his Majesty hath failed of the redemption he desired, but hath met with another kind of redemption from him, which he little expected. For as to the *Reports*, after three months time and consideration, he had offered his Majesty only five animadversions, being rather a scorn, than a satisfaction to his Majesty; whereof one was that in the prince's case he had found out the French statute, which was *filz aisné*, whereas the Latin was *primogenitus*; and so the prince is duke of Cornwall in French, and not duke of Cornwall in Latin. And another was, that he had set Montagu to be chief justice in Henry VIII.'s time, when it should have been in Edward VI.'s, and such other stuff; not falling upon any of those things, which he could not but know were offensive.

That hereupon his Majesty thought good to refresh his memory, and out of many cases, which his Majesty caused to be collated, to require his answer to five, being all such, as were but expatiations of his own, and no judgments; whereunto he returned such an answer, as did either justify himself, or elude the matter, so as his Majesty seeth plainly *antiquum obtinet*.

TO SIR FRANCIS BACON, ATTORNEY-GENERAL.*

SIR,

I HAVE kept your man here thus long, because I thought there would have been some occasion for me to write after Mr. Solicitor-General's being with the king. But he hath received so full instruction from his Majesty, that there is nothing left for me to add in the business. And so I rest

Your faithful servant,

GEORGE VILLIERS.

Royston, the 13th of Octob. 1616.

To the right honourable Sir Francis Bacon, knight, one of his Majesty's privy council, and his Attorney-general.

SIR EDMUND BACON† TO SIR FRANCIS BACON, ATTORNEY-GENERAL.

MY LORD,

I AM bold to present unto your hands by this bearer whom the law calls up, some salt of wormwood, being uncertain, whether the regard of your health makes you still continue the use of that medicine. I could wish it otherwise; for I am persuaded that all diuretics, which carry with them that punctuous nature and caustic quality by calcination, are hurtful to the kidneys, if not enemies to the other principal parts of the body. Wherein if it shall please you for your better satisfaction, to call the advice of your learned physicians, and that they shall resolve of any medicine for your health, wherein my poor labour may avail you, you know where your faithful apothecary dwells, who will be ready at your commandment; as I am bound both by your favours to myself, as also by those to my nephew, whom you have brought out of darkness into light, and by what I hear, have already made him by your bounty, a subject of emulation to his elder brother. We are all partakers of this your

* Harl. MSS. Vol. 7006.

† Nephew of Sir Francis Bacon, being eldest son of Sir Nicholas Bacon, lord keeper of the great seal. Sir Edmund died without issue, April 10, 1649. There are several letters to him from Sir Henry Wotton, printed among the works of the latter.

kindness towards him; and for myself, I shall be ever ready to deserve it by any service that shall lie in the power of

Your lordship's poor nephew,

EDM. BACON.

Redgrave, this 19th of October, 1616.

For the right honourable Sir Francis Bacon, knight, his Majesty's Attorney-General, and one of his most honourable privy counsellors, be these delivered at London.

TO THE KING.

MAY IT PLEASE YOUR EXCELLENT MAJESTY,

I SEND your Majesty a form of discharge for my lord Coke from his place of chief justice of your bench.[a]

I send also a warrant to the lord chancellor, for making forth a writ for a new chief justice, leaving a blank for the name to be supplied by your Majesty's presence; for I never received your Majesty's express pleasure in it.

If your Majesty resolve of Montagu † as I conceive and wish, it is very material, as these times are, that your Majesty have some care, that the recorder succeeding be a temperate and discreet man, and assured to your Majesty's service. If your Majesty, without too much harshness, can continue the place within your own servants, it is best; if not, the man upon whom the choice is like to fall, which is Coventry,‡ I hold doubtful for your service; not but that he is a well learned, and an honest man; but he hath been, as it were, bred by lord Coke, and seasoned in his ways.

God preserve your Majesty.

Your Majesty's most humble and bounden servant,

FR. BACON.

I send not these things, which concern my lord Coke, by my lord Villiers, for such reasons as your Majesty may conceive.

November 13, at noon [1616].

TO THE KING.

IT MAY PLEASE YOUR MOST EXCELLENT MAJESTY,

I SEND your Majesty, according to your commandment, the warrant for the review of Sir Edward Coke's *Reporte*. I had prepared it before I received your Majesty's pleasure; but I was glad to see it was in your mind, as well as in my hands. In the nomination, which your Majesty made of the judges, to whom it should be directed, your Majesty could not name the lord chief justice, that now is,§ because he was not then declared; but you could not leave him out now, without discountenance.

I send your Majesty the state of lord Darcy's cause‖ in the star-chamber, set down by Mr. Solicitor,¶ and mentioned in the letters, which your Majesty received from the lords. I leave all in humbleness to your Majesty's royal judgment: but this is true, that it was the clear opinion of my lord chancellor, and myself, and the two chief justices, and others, that it is a cause most fit for the censure of the court, both for the repressing of duels, and the encouragement of complaints in courts of justice. If your Majesty be pleased it shall go on, there resteth but Wednesday for the hearing; for the last day of term is commonly left for orders, though sometimes, upon extraordinary occasion, it hath been set down for the hearing of some great cause.

I send your Majesty also baron Bromley's[**] report, which your Majesty required; whereby your Majesty may perceive things go not so well in Cumberland, which is the seat of the party your Majesty named to me, as was conceived. And yet if there were land-winds, as there be sea-winds, to bind men in, I could wish he were a little wind-bound, to keep him in the south.

But while your Majesty passeth the accounts of judges in circuits, your Majesty will give me leave to think of the judges here in their upper region. And because Tacitus saith well, "opportuni magnis conatibus transitus rerum;" now upon this change, when he, that letteth, is gone, I shall endeavour, to the best of my power and skill, that there may be a consent and united mind in your judges to serve you and strengthen your business. For I am persuaded there cannot be a sacrifice, from which there may come up to you a sweeter odour of rest, than this effect, whereof I speak.

[a] Sir Edward Coke was removed from that post on the 15th of November, 1616.

† Sir Henry Montagu, recordar of London, who was made lord chief justice of the king's bench, November 16, 1616. He was afterwards made lord treasurer, and created earl of Manchester.

‡ Thomas Coventry, Esq. afterwards lord keeper of the great seal.

§ Sir Henry Montagu.

‖ This is just mentioned in a letter of Sir Francis Bacon to the lord viscount Villiers, printed in his works; but is more particularly stated in the *Reports* of Sir Henry Hobart, lord chief justice of the Common Pleas, pp. 120, 121, Edit. London 1658, fol. as follows. The lord Darcy of the North sued Gervase Markham, Esq. in the star-chamber, in 1616, on this occasion. They had hunted together, and the defendant and a servant of the plaintiff, one Beckwith, fell together by the ears in the field; and Beckwith threw him down, and was upon him cuffing him, when the lord Darcy took his servant off, and reproved him. However, Mr. Markham expressing some anger against his lordship, and charging him with maintaining his man, lord Darcy answered, that he had used Mr. Markham kindly; for if he had not rescued him from his man, the latter would have beaten him to rags. Mr. Markham, upon this, wrote five or six letters to lord Darcy, subscribing them with his name; but did not send them, and only dispersed them unsealed in the fields; the purport of them being this: that whereas the lord Darcy hath said, that, but for him, his servant Beckwith had beaten him to rags, he lied; and as often as he should speak it, he lied; and that he would maintain this with his life: adding, that he had dispersed those letters, that his lordship might find them, or somebody else bring them to him; and that if his lordship were desirous to speak with him, he might send his boy, who should be well used. For this offence, Mr. Markham was censured, and fined 500*l.* by the star-chamber.

¶ Sir Henry Yelverton.

[**] Edward Bromley, made one of the barons of the exchequer, February 6, 1609-10.

For this wretched murderer Bertram,* now gone to his place, I have, perceiving your Majesty's good liking of what I propounded, taken order, that there shall be a declaration concerning the cause in the king's bench, by occasion of punishment of the offence of his keeper; and another in chancery, upon the occasion of moving for an order, according to his just and righteous report. And yet withal, I have set on work a good pen,† and myself will overlook it, for making some little pamphlet fit to fly abroad in the country.

For your Majesty's proclamation touching the wearing of cloth, after I had drawn a form as near as I could to your Majesty's direction, I propounded it to the lords, my lord chancellor being then absent; and after their lordships' good approbation, and some points by them altered, I obtained leave of them to confer thereupon with my lord chancellor and some principal judges, which I did this afternoon; so as, it being now perfected, I shall offer it to the board to-morrow, and so send it to your Majesty.

So humbly craving your Majesty's pardon for troubling you with so long a letter, specially being accompanied with other papers, I ever rest

Your Majesty's most humble and bounden servant,

FR. BACON.

This 21st of November, at ten at night [1616].

REMEMBRANCES FOR THE KING BEFORE HIS GOING INTO SCOTLAND.

MAY IT PLEASE YOUR MAJESTY,

ALTHOUGH your journey be but as a long progress, and that your Majesty shall be still within your own land; and therefore any extraordinary course neither needful, nor in my opinion fit; yet nevertheless, I thought it agreeable to my duty and care of your service, to put you in mind of those points of form, which have relation, not so much to a journey into Scotland, as to an absence from your city of London for six months, or to a distance from your said city near three hundred miles; and that in an ordinary course, wherein I lead myself, by calling to consideration what things there are, that require your signature, and may seem not so fit to expect sending to and fro; and therefore to be supplied by some precedent warrants.

First, your ordinary commissions of justice, of assize, and the peace, need not your signature, but pass of course by your chancellor. And your commissions of lieutenancy, though they need your signature, yet if any of the lieutenants should die, your Majesty's choice and pleasure may be very well attended. Only I should think fit, under your Majesty's correction, that such of your lord lieutenants, as do not attend your person, were commanded to abide within their counties respectively.

For grants, if there were a longer cessation, I think your Majesty will easily believe it will do no hurt. And yet if any be necessary, the continual despatches will supply that turn.

That, which is chiefly considerable, is proclamations, which all do require your Majesty's signature, except you leave some warrant under your great seal to your standing council here in London.

It is true, I cannot foresee any case of such sudden necessity, except it should be the apprehension of some great offenders, or the adjournment of the term upon sickness, or some riot in the city, such as hath been about the liberties of the Tower, or against strangers, &c. But your Majesty in your great wisdom, may perhaps think of many things, that I cannot remember or foresee: and therefore it was fit to refer those things to your better judgment.

Also my lord chancellor's age and health is such, as it doth not only admit, but require the accident of his death‡ to be thought of; which may fall in such a time, as the very commissions of ordinary justice before mentioned, and writs, which require present despatch, cannot well be put off. Therefore your Majesty may be pleased to take into consideration, whether you will not have such a commission, as was prepared about this time twelvemonth in my lord's extreme sickness, for the taking of the seal into custody, and for the seal of writs and commissions for ordinary justice, till you may advise of a chancellor or keeper of the great seal.

Your Majesty will graciously pardon my care, which is assiduous; and it is good to err in caring even rather too much than too little. These things for so much as concerneth forms, ought to proceed from my place, as attorney, unto which you have added some interest in matter, by making me of your privy council. But for the main they rest wholly in your princely judgment, being well informed; because miracles are ceased, though admiration will not cease, while you live.

Indorsed, February 21, 1616.

SIR EDWARD COKE TO THE KING.

MOST GRACIOUS SOVEREIGN,

I THINK it now my duty to inform your Majesty of the motives that induced the lord chancellor and judges to resolve, that a murder or felony, committed by one Englishman upon another in a foreign kingdom, shall be punished before the constable and marshal here in England.

* John Bertram, a grave man, above seventy years of age, and of a clear reputation, according to Camden, *Annales Regis Jacobi I.* p. 21. He killed with a pistol, in Lincoln's-Inn, on the 12th of November, 1616, Sir John Tyndal, a master in chancery, for having made a report against him in a cause, wherein the sum contended for did not exceed 200*l.* He hanged himself in prison on the 17th of that month.

† Mr. Trott.

‡ He died at the age of seventy, on the 15th of March, 1616-17, having resigned the great seal on the 3rd of that month; which was given on the 7th to Sir Francis Bacon.

First, in the book case, in the 13th year of king Henry the fourth, in whose reign the statute was made, it is expressly said, one liege-man was killed in Scotland by another liege-man; and the wife of him that was killed did sue an appeal of murder in the constable's court of England. *Vide Statutum*, saith the book, *de primo Henrici V.* Cap. 14. *Et contemporanea expositio est fortissima in lege.* Stanford,* an author without exception, saith thus, *fol.* 65, *a.*: "By the statute of Henry IV. Cap. 14, if any subject kill another subject in a foreign kingdom, the wife of him that is slain may have an appeal in England before the constable and marshal; which is a case *in terminis terminantibus.* And when the wife, if the party slain have any, shall have an appeal, there, if he hath no wife, his next heir shall have it."

If any fact be committed out of the kingdom, upon the high sea, the lord admiral shall determine it. If in a foreign kingdom, the cognizance belongeth to the constable, where the jurisdiction pertains to him.

And these authorities being seen by Bromley, chancellor, and the two chief justices, they clearly resolved the case, as before I have certified your Majesty.

I humbly desire I may be so happy as to kiss your Majesty's hands, and to my exceeding comfort to see your sacred person; and I shall ever rest

Your Majesty's faithful and loyal subject,

EDW. COKE.

Feb. 25 [1616-17].

To the King's most excellent Majesty.

TO THE KING.†

MAY IT PLEASE YOUR MOST EXCELLENT MAJESTY,

My continual meditations upon your Majesty's service and greatness have, amongst other things, produced this paper enclosed, which I most humbly pray your Majesty to excuse, being that, which, in my judgment, I think to be good both *de vero*, and *ad populum*. Of other things I have written to my lord of Buckingham. God for ever preserve and prosper your Majesty.

Your Majesty's humble servant, most devoted and most bounden,

FR. BACON.

March 23, 1616.

Indorsed,

My lord keeper to his Majesty, with some additional instructions for Sir John Digby.

Additional instructions to Sir JOHN DIGBY.‡

BESIDES your instructions directory to the substance of the main errand, we would have you in the whole carriage and passages of the negotiation, as well with the king himself, as the duke of Lerma, and council there, intermix discourse upon fit occasions, that may express ourselves to the effect following:

That you doubt not, but that both kings, for that which concerns religion, will proceed sincerely, both being entire and perfect in their own belief and way. But that there are so many noble and excellent effects, which are equally acceptable to both religions, and for the good and happiness of the christian world, which may arise of this conjunction, as the union of both kings in actions of state, as may make the difference in religion as laid aside, and almost forgotten.

As first, that it will be a means utterly to extinguish and extirpate pirates, which are the common enemies of mankind, and do so much infest Europe at this time.

Also, that it may be a beginning and seed (for the like actions heretofore have had less beginnings) of a holy war against the Turk: whereunto it seems the events of time do invite christian kings, in respect of the great corruption and relaxation of discipline of war in that empire; and much more in respect of the utter ruin and enervation of the Grand Signor's navy and forces by sea; which openeth a way, with congregating vast armies by land, to suffocate and starve Constantinople, and thereby to put those provinces into mutiny and insurrection.

Also, that by the same conjunction there will be erected a tribunal, or pretorian power, to decide the controversies, which may arise amongst the princes and estates of christendom, without effusion of christian blood; for so much as any estate of christendom will hardly recede from that which the two kings shall meditate and determine.

Also, that whereas there doth, as it were, creep upon the ground a disposition in some places to make popular estates and leagues to the disadvantage of monarchies, the conjunction of the two kings will be able to stop and impedite the growth of any such evil.

These discourses you shall do well frequently to treat upon, and therewithal to fill up the spaces of the active part of your negotiation; representing, that it stands well with the greatness and majesty of the two kings to extend their cogitations and the influence of their government, not only to their own subjects, but to the state of the whole world besides, specially the christian portion thereof.

Account of Council Business.

FOR remedy against the infestation of pirates, than which there is not a better work under heaven, and therefore worthy of the great care his Majesty hath expressed concerning the same, this is done:

* Sir William, the most ancient writer on the pleas of the crown. He was born in Middlesex, August 22, 1509, educated in the university of Oxford, studied the law at Gray's-Inn, in which he was elected autumn reader in 1545, made serjeant in 1552, the year following queen's serjeant, and, in 1554, one of the justices of the common pleas. He died August 28, 1558.

† His Majesty had begun his journey towards Scotland, on the 14th of March, 1616-17.

‡ Ambassador to the court of Spain.

First, Sir Thomas Smith * hath certified in writing, on the behalf of the merchants of London, that there will be a contribution of 20,000*l.* a year, during two years space, towards the charge of repressing the pirates; wherein we do both conceive, that this, being as the first offer, will be increased. And we consider also, that the merchants of the West, who have sustained in proportion far greater damage than those of London, will come into the circle, and follow the example: and for that purpose letters are directed unto them.

Secondly, for the consultation *de modo* of the arming and proceeding against them, in respect that my lord admiral † cometh not yet abroad, the table hath referred it to my lord treasurer, ‡ the lord Carew, § and Mr. Chancellor of the exchequer, ‖ who heretofore hath served as treasurer of the navy, to confer with the lord admiral, calling to that conference Sir Robert Mansell, and others expert in sea-service; and so to make report onto the board. At which time some principal merchants shall likewise attend for the lords better information.

So that, when this is done, his Majesty shall be advertised from the table: whereupon his Majesty may be pleased to take into his royal consideration, both the business in itself, and as it may have relation to Sir John Digby's embassage.

For safety and caution against tumults and disorders in and near the city, in respect of some idle flying papers, that were cast abroad of a May-day, &c. the lords have wisely taken a course neither to nurse it, or nourish it, by too much apprehension, nor much less to neglect due provision to make all sure. And therefore order is given, that as well the trained bands, as the military bands newly erected, shall be in muster as well weekly, in the mean time, on every Thursday, which is the day upon which May-day falleth, as in the May-week itself, the Monday, Tuesday, Wednesday, and Thursday. Besides, that the strength of the watch shall that day be increased.

For the buildings in and about London, order is given for four selected aldermen, and four selected justices, to have the care and charge thereof laid upon them; and they answerable for the observing of his Majesty's proclamation, and for stop of all farther building; for which purposes the said *Esius* are warned to be before the board, where they shall receive a strait charge, and be tied to a continual account.

For the provosts marshals, there is already direction given for the city and the counties adjacent; and it shall be strengthened with farther commission, if there be cause.

For the proclamation, that lieutenants, not being counsellors, deputy lieutenants, justices of the peace, and gentlemen of quality, should depart the city, and reside in their countries: we find the city so dead of company of that kind for the present, as we account it out of season to command that, which is already done. But after men have attended their business the two next terms, in the end of Trinity-term, according to the custom, when the justices shall attend at the star-chamber, I shall give a charge concerning the same: and that shall be corroborated by a proclamation, if cause be.

For the information given against the Witheringtons, that they should countenance and abet the spoils and disorders in the middle shires; we find the informers to falter and fail in their accosation. Nevertheless, upon my motion, the table hath ordered, that the informer shall attend one of the clerks of the council, and set down articolately what he can speak, and how he can prove it, and against whom, either the Witheringtons or others.

For the causes of Ireland, and the late letters from the deputy, ¶ we have but entered into them, and have appointed Tuesday for a farther consoltation of the same; and therefore of that subject I forbear to write more for this present

Indorsed,

March 30, 1617. *An account of council business.*

TO THE LORD KEEPER. **

My honourable lord,

Whereas the late lord chancellor thought it fit to dismiss out of the chancery a cause touching Henry Skipwith to the common law, where he desireth it should be decided: these are to entreat your lordship†† in the gentleman's favour, that if the adverse party shall attempt to bring it now back again into your lordship's court, you would not retain it there, but let it rest in the place where now it is, that without more vexation unto him in posting him from one to another, he may have a final hearing and determination thereof. And so I rest

Your lordship's ever at command,

G. BUCKINGHAM.

My lord,

This is a business, wherein I spake to my lord chancellor; ‡‡ wherenpon he dismissed the suit.

Lincoln, the 4th of April, 1617.

* Of Biborough in Kent, second son of Thomas Smith, of Ostenhanger, of that county, Esq. He had farmed the customs in the reign of queen Elizabeth, and was sent by king James I. ambassador to the court of Russia, in March 1604-5; from whence returning, he was made governor of the society of merchants trading to the East-Indies, Muscovy, the French and Summer Islands; and treasurer for the colony and company of Virginia. He built a magnificent house at Deptford, which was burnt on the 30th of January, 1618; and in April 1619, he was removed from his employment of governor and treasurer, upon several complaints of frauds committed by him.

† Charles Howard, earl of Nottingham.

‡ Thomas Howard, earl of Suffolk.

§ George, lord Carew, who had been president of Munster, in Ireland, and was now master of the ordnance. He was created earl of Totness by king Charles I. 1626.

‖ Sir Fulk Greville.

¶ Sir Oliver St. John, afterwards viscount Grandison.

** Harl. MSS. Vol. 7006.

†† This is the first of many letters, which the marquis of Buckingham wrote to lord Bacon in favour of persons, who had causes depending in, or likely to come into, the court of chancery. And it is not improbable, that such recommendations were considered in that age as less extraordinary and irregular, than they would appear now. The marquis made the same kind of applications to lord Bacon's successor, the lord keeper Williams, in whose *Life*, by bishop Hacket, Part I. p. 107, we are informed, that "there was not a cause of moment, but, as soon as it came to publication, one of the parties brought letters from this mighty peer, and the lord keeper's patron."

‡‡ Ellesmare.

TO THE REVEREND UNIVERSITY OF OXFORD.*

AMONGST the gratulations I have received, none are more welcome and agreeable to me than your letters, wherein the less I acknowledge of those attributes you give me, the more I must acknowledge of your affection, which bindeth me no less to you, that are professors of learning, than my own dedication doth to learning itself. And therefore you have no need to doubt, but I will emulate, as much as in me is, towards you the merits of him that is gone, by how much the more I take myself to have more propriety in the principal motive thereof. And for the equality you write of, I shall by the grace of God, far as may concern me, hold the balance as equally between the two universities, as I shall hold the balance of other justice between party and party. And yet in both cases I must meet with some inclinations of affection, which nevertheless shall not carry me aside. And so I commend you to God's goodness.

Your most loving and assured friend,

FR. BACON.

Gorhambury, April 12, 1617.

TO THE LORD KEEPER.†

MY HONOURABLE LORD,

I HAVE acquainted his Majesty with your letters, who liked all your proceedings well, saving only the point, for which you have since made amends, in obeying his pleasure touching the proclamation. His Majesty would have your lordship go thoroughly about the business of Ireland, whereinto you are so well entered, especially at this time, that the chief justice ‡ is come over, who hath delivered his opinion thereof to his Majesty, and hath understood what his Majesty conceived of the same; wherewith he will acquaint your lordship, and with his own observation and judgment of the businesses of that country.

I give your lordship hearty thanks for your care to satisfy my lady of Rutland's§ desire; and will be as careful, when I come to York, of recommending your suit to the bishop.‖ So I rest

Your lordship's ever at command,

G. BUCKINGHAM.

Newark, the 5th of April, 1617.

To my very honourable lord, Sir Francis Bacon, knight, lord keeper of the great seal of England.

TO THE LORD KEEPER.¶

MY VERY GOOD LORD,

I SPAKE at York with the archbishop,** touching the house, which he hath wholly put into your hands, to do with it what your lordship shall be pleased.

I have heretofore, since we were in this journey, moved his Majesty for despatch of my lord Brackley's†† business: but because his Majesty never having heard of any precedent in the like case, was of opinion, that this would be of ill consequence in making that dignity as easy, as the pulling out of a sword to make a man a knight, and so make it of little esteem, he was desirous to be assured, first, that it was no new course, before he would do it in that fashion. But since he can receive no assurance from your lordship of any precedent in that kind, his Majesty intendeth not so to precipitate the business, as to expose that dignity to censure and contempt, in omitting the solemnities required, and usually belonging unto it.

His Majesty, though he were a while troubled with a little pain in his back, which hindered his hunting, is now, God be thanked, very well, and as merry as he ever was; and we have all held out well.

I showed his Majesty your letter, who taketh very well your care and desire to hear of his health.

So I commit you to God, and rest

Your lordship's most assured friend to do you service,

G. BUCKINGHAM.

Aukland, the 18th of April, 1617.

SINCE the writing of this letter, I have had some farther speech with his Majesty, touching my lord Brackley; and find, that if, in your lordship's information in the course, you write any thing, that may tend to the farthering of the despatch of it in that kind, he desireth it may be done.

TO THE LORD KEEPER.‡‡

MY HONOURABLE LORD,

I SEND your lordship the warrant for the queen§§ signed by his Majesty, to whom I have likewise delivered your lordship's letter. And touching the matter of the pirates, his Majesty cannot yet resolve; but within a day or two your lordship shall see a despatch, which he purposeth to send to the lords

* From the collections of the late Robert Stephens, Esq., historiographer royal, and John Locker, Esq., now in possession of the editor.

† Harl. MSS. vol. 7006.

‡ Sir John Denham, one of the lords justices of Ireland in 1616. He was made one of the barons of the Exchequer in England, May 2, 1617. He died January 6, 1638, in the eightieth year of his age. He was the first who set up customs in Ireland, (not but there were laws for the same before,) of which the first year's revenue amounted but to 500*l.*; but before his death, which was about twenty-two years after, they were let for 54,000*l. per annum*. *Borlase's Reduction of Ireland to the Crown of England*, p. 200. Edit. London, 1675.

§ Frances, countess of Rutland, first wife of Francis, earl of Rutland, and daughter and coheir of Sir Henry Knevet, of Charleton in Wiltshire, knight. She had by the earl an only daughter and heir, Catharine, first married to George, marquis, and afterwards duke, of Buckingham; and secondly to Randolph Mac-Donald, earl, and afterwards marquis, of Antrim in Ireland.

‖ Relating to York-house.

¶ Harl. MSS. vol. 7006.

** Dr. Tobia Matthew.

†† Who desired to be created earl in an unusual manner, by letters patents, without the delivering of the patent by the king's own hand, or without the ordinary solemnities of creation. He was accordingly created earl of Bridgwater, May 27, 1617.

‡‡ Harl. MSS. vol. 7006.

§§ Relating to her house. See the lord keeper's letter of April 7, 1617, printed in his works.

of his council in general, what his opinion and pleasure is in that point.

I would not omit this opportunity to let your lordship know, that his Majesty, God be thanked, is in very good health, and so well pleased with his journey, that I never saw him better, nor merrier. So I rest

Your lordship's ever at command,

G. BUCKINGHAM.

From Newcastle, the 23d of Apr. 1617.

LORD KEEPER BACON TO MR. MAXEY, FELLOW OF TRINITY COLLEGE, CAMBRIDGE.*

After my hearty commendations, I having heard of you, as a man well deserving, and of able gifts to become profitable in the church; and there being fallen within my gift the rectory of Frome St. Quintin with the chapel of Evershot, in Dorsetshire, which seems to be a thing of good value, 18*l.* in the king's books, and in a good country, I have thought good to make offer of it to you; the rather for that you are of Trinity college, whereof myself was some time: and my purpose is to make choice of men rather by care and inquiry, than by their own suits and commendatory letters. So I bid you farewell.

From your loving friend,

FR. BACON, C. S.

From Dorset-house, 23 April, 1617.

THE LORD KEEPER TO HIS NIECE, TOUCHING HER MARRIAGE.

Good niece,

Amongst your other virtues, I know there wanteth not in you a mind to hearken to the advice of your friends. And therefore you will give me leave to move you again more seriously than before in the match with Mr. Comptroller.†

The state wherein you now are, is to be preferred before marriage, or changed for marriage, not simply the one or the other, but according as, by God's providence, the offers of marriage are more or less fit to be embraced. This gentleman is religious, a person of honour, being counsellor of state, a great officer, and in very good favour with his Majesty. He is of years and health fit to be comfortable to you, and to free you of burdensome cares. He is of good means, and a wise and provident man, and of a loving and excellent good nature; and, I find, hath set his affections upon you; so as I foresee you may sooner change your mind, which, as you told me, is not yet towards marriage, than find so happy a choice. I hear he is willing to visit you, before his going into France, which, by the king's commandment, is to be within some ten days: and I could wish you used him kindly and with respect. His return out of France is intended before Michaelmas. God direct you, and be with you. I rest

Your very loving uncle, and assured friend,

FR. BACON.

Dorset-house, this 28th of April, 1617.

TO THE LORD KEEPER.‡

My honourable lord,

I understand that Sir Lewis Tresham hath a suit depending in the chancery before your lordship; and therefore out of my love and respect toward him, I have thought fit to recommend him unto your favour so far only, as may stand with justice and equity, which is all he desireth, having to encounter a strong party. And because he is shortly to go into Spain, about some other business of his own, I farther desire your lordship to give him what expedition you can, that he may receive no prejudice by his journey.

Your lordship's ever at command,

G. BUCKINGHAM.

Indorsed May 6, 1616.

TO THE LORD KEEPER.§

My honourable lord,

I have by reports heard that, which doth much grieve and trouble me, that your lordship hath, through a pain in one of your legs, been forced to keep your chamber. And being desirous to understand the true estate of your health, which reports do not always bring, I entreat your lordship to favour me with a word or two from yourself, which, I hope, will bring me the comfort I desire, who cannot but be very sensible of whatsoever happeneth to your lordship, as being

Your lordship's most affectionate to do you service,

G. BUCKINGHAM.

His Majesty, God be thanked, is very well, and safely returned from his hunting journey.

From Edinburgh, the 3d of June, 1617.

TO THE EARL OF BUCKINGHAM.

My very good lord,

This day I have made even with the business of the kingdom for common justice; not one cause unheard; the lawyers drawn dry of all the motions

* From the collections of the late Robert Stephens, Esq.

† Sir Thomas Edmonds, who had been appointed to that office, December 21, 1616; and January 19, 1617-18, was made treasurer of the household. He had been married to Magdalen, one of the daughters and coheirs of Sir John Wood, knight, clerk of the signet: which lady died at Paris, Dec. 31, 1614.

The proposal for a second marriage between him and the lord keeper's niece does not appear to have had success.

‡ Harl. MSS. Vol. 7006. § Ibid.

they were to make; not one petition unanswered. And this, I think, could not be said in our age before. This I speak not out of ostentation, but out of gladness when I have done my duty. I know men think I cannot continue, if I should thus oppress myself with business: but that account is made. The duties of life are more than life; and, if I die now, I shall die before the world will be weary of me, which in our times is somewhat rare. And all this while I have been a little unperfect in my foot. But I have taken pains more like the beast with four legs, than like a man with scaree two legs. But if it be a gout, which I do neither acknowledge, nor much disclaim, it is a good-natured gout; for I have no rage of it, and it goeth away quickly. I have hope, it is but an accident of changing from a field-air * to a Thames-air; † or rather, I think, it is the distance of the king and your lordship from me, that doth congeal my humours and spirits.

When I had written this letter, I received your lordship's letter of the third of this present, wherein your lordship showeth your solicitous eare of my health, which did wonderfully comfort me. And it is true, that at this present I am very well, and my supposed gout quite vanished.

I humbly pray you to commend my service, infinite in desire, howsoever limited in ability, to his Majesty, to hear of whose health and good disposition is to me the greatest beatitude, which I can receive in this world. And I humbly beseech his Majesty to pardon me, that I do not now send him my account of council business, and other his royal commands, till within these four days; because the flood of business of justice did hitherto wholly possess me; which, I know, worketh this effect, as it contenteth his subjects, and knitteth their hearts more and more to his Majesty, though, I must confess, my mind is upon other matters, as his Majesty shall know, by the grace of God, at his return. God ever bless and prosper you.

Your lordship's true and most devoted friend and servant,

FR. BACON.

Whitehall, this 8th of June, 1617.

TO THE LORD KEEPER.‡

My honourable lord,

Your lordship will understand, by Sir Thomas Lake's letter, his Majesty's directions touching the surveyor's deputy of the court of wards. And though I assure myself of your lordship's care of the business, which his Majesty maketh his own; yet my respect to Sir Robert Naunton § maketh me add my recommendation thereof to your lordship, whom I desire to give all the fartherance and assistance you can to the business, that no prejudice or imputation may light upon Sir Robert Naunton, through his zealous affection to attend his Majesty in this journey.

I will not omit to let you know, that his Majesty is very well, and receiveth much contentment in his journey. And with this conclusion, I rest

Your lordship's most affectionate to do you service,

G. BUCKINGHAM.

Edinburgh, the 11th of June, 1617.

TO THE LORD VISCOUNT FENTON.‖

My very good lord,

I thank your lordship for your courteous letter; and if I were asked the question, I would always choose rather to have a letter of no news, than a letter of news; for news imports alteration: but letters of kindness and respect bring that, which, though it be no news amongst friends, is more welcome.

I am exceedingly glad to hear, that this journey of his Majesty, which I never esteemed more than a long progress, save that it had reason of state joined with pleasure, doth sort to be so joyful and so comfortable.

For your parliament, God speed it well; and for ours, you know the sea would be calm, if it were not for the winds: and I hope the king, whensoever that shall be, will find those winds reasonably well laid.

Now that the sun is got up a little higher, God ordains all things to the happiness of his Majesty, and his monarchy.

My health, I thank God, is good; and I hope this supposed gout was but an incomer. I ever rest

Your lordship's affectionate and assured friend,

FR. BACON.

Whitehall, June 18 [1617].

TO THE LORD KEEPER, WRITTEN FROM SCOTLAND, JUNE 28, 1618.¶

I will begin to speak of the business of this day; *opus hujus diei in die suo*, which is of the parliament. It began on the 7th of this month, and ended this day, being the 28th of June. His Majesty, as I perceived by relation, rode thither in great state the first day. These eyes are witnesses, that he rode in an honourable fashion, as I have seen him in England, this day. All the lords rode in English robes: not an English lord on horseback, though all the parliament-house at his Majesty's elbow, but my lord of Buckingham, who waited upon the king's stirrup in his collar, but not in his robes. His Majesty the first day, by way of preparation to

* Gray's-Inn.

† Dorset-house, originally belonging to the bishops of Salisbury, afterwards the house of Sir Richard Sackville, and then of his son Sir Thomas, earl of Dorset, and lord treasurer.

‡ Harl. MSS. vol. 7006.

§ Surveyor of the court of wards.

‖ Sir Thomas Erskine, who for his service to the king, in the attempt of the earl of Gowry, was, upon his Majesty's accession to the throne of England, made captain of his guard in the room of Sir Walter Raleigh. He was afterwards created earl of Kelly.

¶ From a copy in the Paper-office.

the subject of the parliament, made a declaratory speech, wherein he expressed himself what he would not do, but what he would do. The relation is too prolix for a sheet of paper; and I am promised a copy of it, which I will bring myself unto your lordship with all the speed I may. But I may not be so reserved, as not to tell your lordship, that in that speech his Majesty was pleased to do England and Englishmen much honour and grace; and that he studied nothing so much, sleeping and waking, as to reduce the barbarity, I have warrant to use the king's own word, of this country unto the sweet civility of ours; adding farther, that if the Scottish nation would be as docible to learn the goodness of England, as they are teachable to limp after their ill, he might with facility prevail in his desire: for they had learned of the English to drink healths, to wear coaches and gay clothes, to take tobacco, and to speak neither Scottish nor English. Many such diseases of the times his Majesty was pleased to enumerate, not fit for my pen to remember, and graciously to recognise, how much he was beholden to the English nation for their love and conformity to his desires. The king did personally and infallibly sit amongst them of the parliament every day; so that there fell not a word amongst them, but his Majesty was of council with it.

The whole assembly, after the wonted manner, was abstracted into eight bishops, eight lords, eight gentlemen, knights of the shires, and eight lay burgesses for towns. And this epitome of the whole parliament did meet every day in one room to treat and debate of the great affairs of the kingdom. There was exception taken against some of the lower house, which were returned by the country, being pointed at as men averse in their appetites and humours to the business of the parliament, who were deposed of their attendance by the king's power; and others, better affected, by the king's election, placed in their room.

The greatest and weightiest articles, agitated in this parliament, were specially touching the government of the kirk and kirkmen, and for the abolishing of hereditary sheriffs to an annual charge; and to enable justices of the peace to have as well the real execution, as the title of their places. For now the sheriff doth hold *jura regalia* in his circuit without check or controlment; and the justices of the peace do want the staff of their authority. For the church and commonwealth, his Majesty doth strive to shape the frame of this kingdom to the method and degrees of the government of England, as by reading of the several acts it may appear. The king's desire and travel herein, though he did suffer a momentary opposition, (for his countrymen will speak boldly to him,) hath in part been profitable. For though he hath not fully and complementally prevailed in all things, yet he hath won ground in most things, and hath gained acts of parliament to authorize particular commissioners, to set down orders for the church and churchmen, and to treat with sheriffs for their offices by way of pecuniary composition. But all these proceedings are to have an inseparable reference to his Majesty. If any prove unreasonably and undutifully refractory, his Majesty hath declared himself, that he will proceed against him by the warrant of the law, and by the strength of his royal power.

His Majesty's speech this day had a necessary connexion with his former discourse. He was pleased to declare what was done and determined in the progress of this parliament; his reasons for it; and that nothing was gotten by shouldering or wrestling, but by debate, judgment, and reason, without any interposition of his royal power in any thing. He commanded the lords in state of judicature, to give life, by a careful execution, unto the law, which otherwise was but *mortuum cadaver et bona peritura.*

Thus much touching the legal part of my advertisement unto you. I will give your lordship an account in two lines of the complement of the country, time, and place.

The country affords more profit and better contentment, than I could ever promise myself, by my reading of it.

The king was never more cheerful in body and mind, never so well pleased: and so are the English of all conditions.

The entertainment, very honourable, very general, and very full: every day feasts and invitations. I know not who paid for it. They strive, by direction, to give us all fair contentment, that we may know, that the country is not so contemptible, but that it is worth the cherishing.

The lord provost of this town, who in English is the mayor, did feast the king and all the lords this week; and another day all the gentlemen. And I confess, it was performed with state, with abundance, and with a general content.

There is a general, and a bold expectation, that Mr. John Murray shall be created a baron of this country; and some do chat, that my lord of Buckingham's Mr. Wray shall be a groom of the bedchamber in his place.

There hath been yet no creation of lords, since his Majesty did touch Scotland: but of knights many, yet not so many as we heard in England; but it is thought all the pensioners will be knights tomorrow. Neither are there any more English lords sworn of the privy council here, save my lord of Buckingham.

The earl of Southampton, Montgomery, and Hay, are already gone for England.

I have made good profit of my journey hither; for I have gotten a transcript of the speech, which your lordship did deliver at your first and happy sitting in chancery; which I could not gain in England. It hath been showed to the king, and received due approbation. The God of heaven, allwise and all-sufficient, guard and assist your lordship in all your actions: for I can read here whatsoever your lordship doth act there; and your courses be such, as you need not to fear to give copies of them. But the king's ears be wide and long, and he seeth with many eyes. All this works for your honour and comfort. I pray God nothing be soiled, heated, or cooled in the carriage. Envy sometimes attends

virtues, and not for good; and these bore certain proprieties and circumstances inherent to your lordship's mind; which men may admire, I cannot express. But I will wade no farther herein, lest I should seem eloquent. I have been too saucy with your lordship, and held you too long with my idleness. He that takes time from your lordship, robs the public. God give your body health, and your soul heaven.

My lord of Pembroke, my lord of Arundel, my lord Zouch, and Mr. Secretary Lake, were new sworn of the council here.

TO THE EARL OF BUCKINGHAM.

My very good lord,

I have sent enclosed a letter to his Majesty concerning the strangers; in which business I had formerly written to your lordship a joint letter with my lord of Canterbury, and my lord Privy Seal,* and Mr. Secretary Winwood.

I am, I thank God, much relieved with my being in the country air, and the order I keep; so that of late years I have not found my health better.

Your lordship writeth seldomer than you were wont; but when you are once gotten into England, you will be more at leisure. God bless and prosper you.

Your lordship's true and devoted friend and servant.

FR. BACON.

Gorhambury, July 29, 1617.

TO THE LORD KEEPER.†

My honourable lord,

I have acquainted his Majesty with your letter, who in this business of Sir John Bennet's,‡ hath altogether followed your lordship's direction.

His Majesty hath at length been pleased to despatch Mr. Lowder,§ according to your lordship's desire, for the place in Ireland. What the cause of the stay was, I shall impart to your lordship, when I see you, being now too long to relate.

His Majesty hath not yet had leisure to read the little book you sent me to present unto him; but, as soon as I see the fittest opportunity, I will offer it to him again.

His Majesty, God be thanked, is very well; and I am exceeding glad to hear of your health, that you are of so good term-proof, which is the best of it, being you are in those businesses put most to the trial, which I wish may long continue in that strength, that you may still do his Majesty and your country that good service, whereof we hear so general approbation, that it much rejoiceth me, who rest

Your lordship's ever at command,

G. BUCKINGHAM.

Falkland, the 5th of July, 1617.

* Edward, earl of Worcester.

† Harl. MSS. Vol. 7006.

‡ Of Godstow in Oxfordshire, who was sent to Brussels to the archduke, to expostulate with him concerning a libel on the king, imputed to Erycius Puteanus, and entitled, *Isaaci Casauboni Corona Regia.*

§ He had been solicitor to the queen; but finding her dislike of him, he was willing to part with his place for that of one of the barons of the exchequer in Ireland; for which he was recommended by the lord keeper to the earl of Buckingham, in a letter dated at Whitehall, May 25, 1617.

TO THE KING.‖

May it please your most excellent Majesty,

I do very much thank your Majesty for your letter, and think myself much honoured by it. For though it contain some matter of dislike, in which respect it had grieved me more than any event which hath fallen out in my life; yet because I know reprehensions from the best masters to the best servants are necessary; and that no chastisement is pleasant for the time, but yet worketh good effects; and for that I find intermixed some passages of trust and grace; and find also in myself inwardly sincerity of intention, and conformity of will, howsoever I may have erred; I do not a little comfort myself, resting upon your Majesty's accustomed favour; and most humbly desiring, that any one of my particular notions may be expounded by the constant and direct course, which, your Majesty knoweth, I have ever held in your service.

And because it hath pleased your Majesty, of your singular grace and favour, to write fully and freely unto me; it is duty and decorum in me not to write shortly to your Majesty again, but with some length; not so much by way of defence or answer, which yet I know your Majesty would always graciously admit; as to show, that I have, as I ought, weighed every word of your Majesty's letter.

First, I do acknowledge, that this match of Sir John Villiers is *magnum in parvo* in both senses, that your Majesty speaketh. But your Majesty perceiveth well, that I took it to be in a farther degree, *majus in parvo*, in respect of your service. But since your Majesty biddeth me to confide upon your act of empire, I have done. For, as the scripture saith, "to God all things are possible;" so certainly to wise kings much is possible. But for that second sense, that your Majesty speaketh of, *magnum in parvo*, in respect of the stir; albeit it being but a most lawful and ordinary thing, I most humbly pray your Majesty to pardon me, if I signify to you, that we here take the loud and vocal, and, as I may call it, streperous carriage, to have been far more on the other side, which indeed is inconvenient, rather than the thing itself.

Now for the manner of my affection to my lord of Buckingham, for whom I would spend my life, and that which is to me more, the cares of my life; I must humbly confess, that it was in this a little parent-like, this being no other term, than his lord-

‖ This letter appears, from the indorsement of the king's answer to it, to have been written at Gorhambury, July 25, 1617. That printed with this date in his *Works*, should be August 2, 1617, as I find by the original draught of it.

ship hath heretofore vouchsafed to my counsels; but in truth, and it please your Majesty, without any grain of disesteem for his lordship's discretion. For I know him to be naturally a wise man, of a sound and staid wit, as I ever said unto your Majesty. And again, I know he hath the best tutor in Europe. But yet I was afraid, that the height of his fortune might make him too secure; and as the proverb is, a looker-on sometimes seeth more than a gamester.

For the particular part of a true friend, which your Majesty witnesseth, that the earl hath lately performed towards me, in palliating some errors of mine; it is no new thing with me to be more and more bound to his lordship; and I am most humbly to thank, whatsoever it was, both your Majesty and him; knowing well, that I may and do commit many errors, and must depend upon your Majesty's gracious countenance and favour for them, and shall have need of such a friend near your Majesty. For I am not so ignorant of mine own case, but that I know I am come in with as strong an envy of some particulars, as with the love of the general.

For my opposition to this business, which, it seemeth, hath been informed your Majesty, I think it was meant, if it be not a thing merely feigned, and without truth or ground, of one of these two things; for I will dissemble nothing with your Majesty. It is true, that in those matters, which by your Majesty's commandment and reference, came before the table concerning Sir Edward Coke, I was sometimes sharp, it may be too much; but it was with end to have your Majesty's will performed; or else, when methought he was more peremptory than became him, in respect of the honour of the table. It is true also, that I disliked the riot or violence, whereof we of your council gave your Majesty advertisement by our joint letter: and I disliked it the more, because he justified it to be law; which was his old song. But in that act of council, which was made thereupon, I did not see but all my lords were as forward as myself, as a thing most necessary for preservation of your peace, which had been so carefully and firmly kept in your absence. And all this had a fair end, in a reconcilement made by Mr. Attorney,* whereby both husband and wife and child should have kept together. Which, if it had continued, I am persuaded the match had been in better and fairer forwardness, than now it is.

Now for the times of things, I beseech your Majesty to understand that which my lord of Buckingham will witness with me, that I never had any word of letter from his lordship of the business, till I wrote my letter of advice; nor again, after my letter of advice, till five weeks after, which was now within this sennight. So that although I did in truth presume, that the earl would do nothing without your Majesty's privity; yet I was in some doubt, by this his silence of his own mind, that he was not earnest in it, but only was content to embrace the officious offers and endeavours of others.

But, to conclude this point, after I had received, by a former letter of his lordship, knowledge of his mind, I think Sir Edward Coke himself, the last time he was before the lords, might particularly perceive an alteration in my carriage. And now that your Majesty hath been pleased to open yourself to me, I shall be willing to farther the match by any thing, that shall be desired of me, or that is in my power.

And whereas your Majesty conceiveth some dregs of spleen in me by the word *Mr. Bacon;* truly it was but to express in thankfulness the comparative of my fortune unto your Majesty, the author of the latter, to show how little I needed to fear, while I had your favour. For, I thank God, I was never vindicative nor implacable.

As for my opinion of prejudice to your Majesty's service, as I touched it before, I have done; I do humbly acquiesce in your Majesty's satisfaction, and rely upon your Majesty's judgment, who unto judgment have also power, so to mingle the elements, as may conserve the fabric.

For the interest which I have in the mother, I do not doubt but it was increased by this, that I in judgment, as I then stood, affected that which she did in passion. But I think the chief obligation was, that I stood so firmly to her in the matter of her assurance, wherein I supposed I did your Majesty service, and mentioned it in a memorial of council-business, as half craving thanks for it. And sure I am now, that, and the like, hath made Sir Edward Coke a convert, as I did write to your Majesty in my last.

For the collation of the two spirits, I shall easily subscribe to your Majesty's answer; for Solomon were no true man, if in matter of malice the woman should not be the superior.

To conclude, I have gone through, with the plainness of truth, the parts of your Majesty's letter, very humbly craving pardon for troubling your Majesty so long; and most humbly praying your Majesty to continue me in your grace and favour, which is the fruit of my life upon the root of a good conscience. And although time in this business have cast me upon a particular, which, I confess, may have probable show of passion or interest; yet God is my witness, that the thing that most moved me, was an anxious and solicitous care of your Majesty's state and service, out of consideration of the time past and present.

God ever preserve and bless your Majesty, and send you a joyful return, after your prosperous journey.

* Sir Henry Yelverton.

The KING *to the* LORD KEEPER, *in answer to his Lordship's letter from Gorhambury, of July* 25, 1617.

JAMES R.

RIGHT trusty and well beloved counsellor, we greet you well.

Although our approach doth now begin to be near London, and that there doth not appear any great necessity of answering your last letter, since we are so shortly to be at home; yet we have thought good

to make some observations to you upon the same, that you may not err, by mistaking our meaning.

The first observation we are to make is, that, whereas you would invert the second sense, wherein we took your *magnum in parvo*, in accounting it to be made *magnum* by their streperous carriage, that were for the match, we cannot but show you your mistaking therein. For every wrong must be judged by the first violent and wrongous ground whereupon it proceeds. And was not the thefteous stealing away of the daughter from her own father * the first ground whereupon all this great noise hath since proceeded? For the ground of her getting again came upon a lawful and ordinary warrant, subscribed by one of our council,† for redress of the former violence: and except the father of a child might be proved to be either lunatic, or idiot, we never read in any law, that either it could be lawful for any creature to steal his child from him; or that it was a matter of noise and streperous carriage for him to hunt for the recovery of his child again.

Our next observation is, that whereas you protest your affection to Buckingham, and thereafter confess, that it is in some sort *parent-like*; yet, after that you have praised his natural parts, we will not say, that you throw all down by a direct imputation upon him; but we are sure you do not deny to have had a greater jealousy of his discretion, than, so far as we conceive, he ever deserved at your or any man's hands. For you say, that you were afraid that the height of his fortune might make him too secure; and so, as a looker on, you might sometimes see more than a gamester. Now we know not how to interpret this in plain English otherwise, than that you were afraid, that the height of his fortune might make him misknow himself. And surely, if that be your *parent-like affection* toward him, he hath no obligation to you for it. And for our part, besides our own proof, that we find him farthest from that vice of any courtier, that ever we had so near about us; so do we fear, that you shall prove the only phenix in that jealousy of all the kingdom. For we would be very sorry, that the world should apprehend that conceit of him. But we cannot conceal, that we think it was least your part of any to enter into that jealousy of him, of whom we have heard you oft speak in a contrary style. And as for that error of yours, which he lately palliated, whereof you seem to pretend ignorance; the time is so short since you commended to him one ‡ to be of the barons of our exchequer in Ireland, as we cannot think you to be so short of memory, as to have forgotten how far you undertook in that business, before acquainting us with it; what a long journey you made the poor man undertake, together with the slight recommendation you sent of him; which drave us to those straits, that both the poor man had been undone, and your credit a little blasted, if Buckingham had not, by his importunity, made us both grant you more than suit, for' you had already acted a part of it, and likewise run a hazard of the hinderance of your own service, by preferring a person to so important a place, whom you so slightly recommended.

Our third observation is upon the point of your opposition to this business, wherein you either do, or at least would seem to mistake us a little. For first, whereas you excuse yourself of the oppositions you made against Sir Edward Coke at the council-table, both for that, and other causes; we never took upon us such a patrociny of Sir Edward Coke, as if he were a man not to be meddled withal in any case. For whatsoever you did against him, by our employment and commendation, we ever allowed it, and still do, for good service on your part. *De bonis operibus non lapidamus vos.* But whereas you talk of the riot and violence committed by him, we wonder you make no mention of the riot and violence of them, that stole away his daughter, which was the first ground of all that noise, as we said before. For a man may be compelled by manifest wrong beyond his patience; and the first breach of that quietness, which hath ever been kept since the beginning of our journey, was made by them that committed the theft. And for your laying the burden of your opposition upon the council, we meddle not with that question; but the opposition, which we justly find fault with you, was the refusal to sign a warrant for the father to the recovery of his child, clad with those circumstances, as is reported, of your slight carriage to Buckingham's mother, when she repaired to you upon so reasonable an errand. What farther opposition you made in that business, we leave it to the due trial in the own time. But whereas you would distinguish of times, pretending ignorance either of our meaning or his, when you made your opposition; that would have served for a reasonable excuse not to have farthered such a business, till you had been first employed in it: but that can serve for no excuse of crossing any thing, that so nearly concerned one, whom you profess such friendship unto. We will not speak of obligation; for surely we think, even in good manners, you had reason not to have crossed any thing,

* Lady Hatton had first removed her daughter to Sir Edmund Withipole's house, near Oatlands, without the knowledge of Sir Edward Coke; and from thence, according to a letter of Mr. Chamberlain, dated July 19, 1617, the young lady was privately conveyed to a house of the lord of Argyle's by Hampton-Court. "Whence," adds Mr. Chamberlain, "her father, with a warrant from Mr. Secretary [Winwood,] fetched her; but indeed went farther than his warrant, and brake open divers doors before he got her."

† Secretary Winwood, who, as Mr. Chamberlain observes in the letter cited in the note above, was treated with ill language at the council-board by the lord keeper, and threatened with a *præmunire*, on account of his warrant granted to Sir Edward Coke His lordship, at the same time, told the lady Compton, mother of the earl of Buckingham, that they wished *well to her* and her sons, and would be ready to serve the earl with all true affection; whereas others did it out of *faction* and *ambition*. Which words glancing directly at secretary Winwood, he alleged, that what he had done was by the direction of the queen and the other parties, and showed a letter of approbation of all his courses from the king, making the whole table judge what *faction* or *ambition* appeared in his carriage: to which no answer was returned. The queen, some time after, taking notice of the disgust, which the lord keeper had conceived against secretary Winwood, and asking his lordship, what occasion the secretary had given him to oppose himself so violently against him, his lordship answered, "Madam, I can say no more but he is proud, and I am proud." MS. letter of Mr. Chamberlain, October 11, 1617.

‡ Mr. Lowder. See the letter of the earl of Buckingham of the 5th of July.

wherein you had heard his name used, till you had heard from him. For if you had willingly given your consent and hand to the recovery of the young gentlewoman; and then written both to us, and to him, what inconvenience appeared to you to be in such a match; that had been the part indeed of a true servant to us, and a true friend to him. But first to make an opposition, and then to give advice by way of friendship, is to make the plough go before the horse.

Thus leaving all the particulars of your carriage, in this business, to the own proper time, which is ever the discoverer of truth, we commend you to God. Given under our signet at Nantwich, in the fifteenth year of our reign of Great Britain, &c.

TO THE LORD KEEPER BACON.*

My lord,

If your man had been addressed only to me, I should have been careful to have procured him a more speedy despatch: but now you have found another way of address, I am excused; and since you are grown weary of employing me, I can be no otherwise in being employed. In this business of my brother's that you over-trouble yourself with, I understand from London by some of my friends, that you have carried yourself with much scorn and neglect both toward myself and friends; which, if it prove true, I blame not you, but myself, who was ever

Your lordship's assured friend,

G. BUCKINGHAM.

[July, 1617.]

TO THE LORD KEEPER.

My lord,

I have received your lordship's letter by your man; but having so lately imparted my mind to you in my former letters, I refer your lordship to those letters, without making a needless repetition, and rest

Your lordship's at command,

G. BUCKINGHAM.

Ashton, the 25th of Aug. 1617.

To my honourable lord, Sir Francis Bacon, knight, Lord Keeper of the great seal of England.

SIR HENRY YELVERTON, ATTORNEY-GENERAL, TO THE LORD KEEPER BACON.

My most worthy and honourable lord,

I dare not think my journey lost, because I have with joy seen the face of my master, the king, though more clouded towards me than I looked for.

Sir Edward Coke hath not forborne, by any engine, to heave at your honour, and at myself; and he works by the weightiest instrument, the earl of Buckingham, who, as I see, sets him as close to him as his shirt, the earl speaking in Sir Edward's praise, and, as it were, menacing in his spirit.

My lord, I imboldened myself to assay the temper of my lord of Buckingham to myself, and found it very fervent, misled by information, which yet I find he embraced as truth, and did nobly and plainly tell me, he would not secretly bite; but whosoever had any interest, or tasted of the opposition to his brother's marriage, he would as openly oppose them to their faces, and they should discern what favour he had, by the power he would use.

In the passage between him and me, I stood with much confidence upon these grounds.

First, that neither your lordship nor myself had any way opposed, but many ways had farthered, the fair passage to the marriage.

Secondly, that we only wished the manner of Sir Edward's proceedings to have been more temperate, and more nearly resembling the earl's sweet disposition.

Thirdly, that the chiefest check in this business was Sir Edward himself, who listened to no advice, who was so transported with passion, as he purposely declined the even way, which your lordship and the rest of the lords left both him, his lady, and his daughter, in.

Fourthly, I was bold to stand upon my ground; and so I said I knew your lordship would, that these were slanders, which were brought him of us both, and that it stood not with his honour to give credit to them.

After I had passed these straits with the earl, leaving him leaning still to the first relation of envious and odious adversaries, I adventured to approach his Majesty, who graciously gave me his hand to kiss, but intermixed withal that I deserved not that favour, if three or four things were true, which he had to object against me. I was bold to crave his princely justice; first, to hear, then to judge; which he graciously granted, and said, he wished I could clear myself. I answered I would not appeal to his mercy in any of the points, but would endure the severest censure, if any of them were true. Whereupon he said, he would reserve his judgment till he heard me; which could not be then, his other occasions pressed him so much. All this was in the hearing of the earl; and I protest, I think the confidence in my innoceney made me depart half justified; for I likewise kissed his Majesty's hand at his departure; and though out of his grace he commanded my attendance to Warwick, yet upon my suit he easily inclined to give me the choice, to wait on him at Windsor, or at London.

Now, my lord, give me leave, out of all my affections, that shall ever serve you, to intimate touching yourself.

1. That every courtier is acquainted, that the earl professeth openly against you, as forgetful of his kindness, and unfaithful to him in your love, and in your actions.

2. That he returneth the shame upon himself, in not listening to counsel, that dissuaded his affection

* From the collections of Robert Stephens, Esq. deceased.

from you, and not to mount you so high, not forbearing in open speech, as divers have told me, and this bearer, your gentleman, hath heard also, to tax you, as if it were an inveterate custom with you, to be unfaithful to him, as you were to the earls of Essex and Somerset.

3. That it is too common in every man's mouth in court, that your greatness shall be abated; and as your tongue hath been as a razor to some, so shall theirs be to you.

4. That there are laid up for you, to make your burden the more grievous, many petitions to his Majesty against you.

My lord, Sir Edward Coke, as if he were already upon his wings, triumphs exceedingly; hath much private conference with his Majesty; and in public doth offer himself, and thrust upon the king, with as great boldness of speech, as heretofore.

It is thought, and much feared, that at Woodstock he will again be recalled to the council-table; for neither are the earl's ears, nor his thoughts, ever off him.

Sir Edward Coke, with much audacity, affirmeth his daughter to be most deeply in love with Sir John Villiers; that the contract pretended with the earl of Oxford is counterfeit; and the letter also, that is pretended to have come from the earl.

My noble lord, if I were worthy, being the meanest of all to interpose my weakness, I would humbly desire,

1. That your lordship fail not to be with his Majesty at Woodstock. The sight of you will fright some.

2. That you single not yourself from other lords; but justify the proceedings as all your joint acts; and I little fear but you pass conqueror.

3. That you retort the clamour and noise in this business upon Sir Edward Coke, by the violence of his carriage.

4. That you seem not dismayed, but open yourself bravely and confidently, wherein you can excel all subjects; by which means I know you shall amaze some, and daunt others.

I have abused your lordship's patience long; but my duty and affection towards your lordship shall have no end: but I will still wish your honour greater, and rest myself

Your honour's servant,

HENRY YELVERTON.

Daventry, Sept. 3, 1617.

I beseech your lordship burn this letter.

To the right honourable his singular good lordship, the lord keeper of the great seal.

TO THE LORD KEEPER.

My lord,

I have received so many letters lately from your lordship, that I cannot answer them severally: but the ground of them all being only this, that your lordship feareth I am so incensed against you, that I will hearken to every information that is made unto me; this one letter may well make answer unto them all. As his Majesty is not apt to give ear to any idle report against men of your place; so, for myself, I will answer, that it is far from my disposition, to take any advantage in that kind. And for your lordship's unkind dealing with me in this matter of my brother's, time will try all. His Majesty hath given me commandment to make this answer in his name to your letter to him, that he needeth not to make any other answer to you, than that which in that letter you make to yourself, that you know his Majesty to be so judicious, that whatsoever he heareth, he will keep one ear open to you. Which being indeed his own princely disposition, you may be assured of his gracious favour in that kind.

I will not trouble your lordship with any longer discourse at this time, being to meet you so shortly, where will be better trial of all that hath passed, than can be made by letters. So I rest

Your lordship's at command,

G. BUCKINGHAM.

Warwick, Sept. 5 [1617].

To the right honourable Sir Francis Bacon, knight, lord keeper of the great seal of England.

Advice to the King, for reviving the Commission of Suits.

That which for the present I would have spoken with his Majesty about, as a matter wherein time may be precious, being upon the tenderest point of all others. For though the particular occasion may be despised, and yet nothing ought to be despised in this kind, yet the counsel thereupon I conceive to be most sound and necessary, to avoid future perils.

There is an examination taken within these few days, by Mr. Attorney, concerning one Baynton, or Baynham, for his name is not yet certain, attested by two witnesses, that the said Baynton, without any apparent show of being overcome with drink, otherwise than so as might make him less wary to keep secrets, said, that he had been lately with the king, to petition him for reward of service; which was denied him. Whereupon it was twice in his mind to have killed his Majesty. The man is not yet apprehended, and said by some to be mad, or half mad; which, in my opinion, is not less dangerous; for such men commonly do most mischief; and the manner of his speaking imported no distraction. But the counsel I would out of my care ground hereupon, is, that his Majesty would revive the commission for suits, which hath been now for these three years, or more, laid down. For it may prevent any the like wicked cogitations, which the devil may put into the mind of a roarer or swaggerer, upon a denial: and besides, it will free his Majesty from much importunity, and save his coffers also. For I am sure when I was a commissioner, in three whole

years' space there passed scarce ten suits that were allowed. And I doubt now, upon his Majesty's coming home from this journey, he will be much troubled with petitions and suits; which maketh me think this remedy more seasonable. It is not meant, that suits generally should pass that way, but only such suits as his Majesty would be rid on.

Indorsed,

September 21, 1617.

To revive the commission of suits. For the King.

THE EARL OF BUCKINGHAM TO THE LORD KEEPER, SIR FRANCIS BACON.*

My Loan,

I have made his Majesty acquainted with your note concerning that wicked fellow's speeches, which his Majesty contemneth, as is usual to his great spirit in these cases. But, notwithstanding, his Majesty is pleased, that it shall be exactly tried, whether this foul-mouthed fellow was taken either with drunkenness or madness, when he spake it. And as for your lordship's advice for setting up again the commissioners for suits, his Majesty saith, there will be time enough for thinking upon that, at his coming to Hampton-Court.

But his Majesty's direction, in answer of your letter, hath given me occasion to join hereunto a discovery upon the discourse you had with me this day.† For I do freely confess, that your offer of submission unto me, and in writing, if so I would have it, battered so the unkindness, that I had conceived in my heart for your behaviour towards me in my absence, as out of the sparks of my old affection towards you, I went to sound his Majesty's intention towards you, specially in any public meeting; where I found, on the one part, his Majesty so little satisfied with your late answer unto him, which he counted, for I protest I use his own terms, *confused and childish*, and his rigorous resolution, on the other part, so fixed, that he would put some public exemplary mark upon you; as I protest the sight of his deep-conceived indignation quenched my passion, making me upon the instant change from the person of a party into a peace-maker; so as I was forced upon my knees to beg of his Majesty, that he would put no public act of disgrace upon you. And as, I dare say, no other person would have been patiently heard in this suit by his Majesty but myself; so did I, though not without difficulty, obtain thus much, that he would not so far disable you from the merit of your future service, as to put any particular mark of disgrace upon your person. Only thus far his Majesty protesteth, that upon the conscience of his office he cannot omit, though laying aside all passion, to give a kindly reprimand, at his first sitting in council, to so many of his counsellors as were then here behind, and were actors in this business, for their ill behaviour in it. Some of the particular errors committed in this business he will name, but without accusing any particular persons by name.

Thus your lordship seeth the fruits of my natural inclination. I protest, all this time past it was no small grief unto me to hear the mouth of so many, upon this occasion, open to load you with innumerable malicious and detracting speeches, as if no music were more pleasing to my ear, than to rail of you; which made me rather regret the ill nature of mankind, that, like dogs, love to set upon them that they see snatched at.

And to conclude, my lord, you have hereby a fair occasion so to make good hereafter your reputation, by your sincere service to his Majesty, as also by your firm and constant kindness to your friends, as I may, your lordship's old friend, participate of the comfort and honour that will thereby come to you. Thus I rest at last

Your lordship's faithful friend and servant,

G. B.

The force of your old kindness hath made me set down this in writing unto you, which some, that have deserved ill of me in this action, would be glad to obtain by word of mouth, though they be far enough from it, for ought I yet see. But I beseech your lordship to reserve this secretly to yourself only, till our meeting at Hampton-Court, lest his Majesty should be highly offended, for a cause that I know.

Indorsed,

A letter of reconciliation from lord Buckingham, after his Majesty's return from Scotland.

TO THE EARL OF BUCKINGHAM.

My very good Lord,

It may please your lordship to let his Majesty understand, that I have spoken with all the judges, signifying to them his Majesty's pleasure touching the commendams. They all *una voce* did reaffirm, that his Majesty's powers, neither the power of the crown, nor the practised power by the archbishop, as well in the commendam *ad recipiendum*, as the commendam *ad retinendum*, are intended to be touched; but that the judgment is built upon the particular defects and informalities of this commendam now before them. They received with much comfort, that his Majesty took so well at their hands the former stay, and were very well content and desirous, that when judgment is given, there be a faithful report made of the reason thereof.

The accounts of the summer circuits, as well as that of the lent circuit, shall be ready against his Majesty's coming. They will also be ready with some account of their labours concerning Sir Edward Coke's *Reports*: wherein I told them his Majesty's meaning was, not to disgrace the person, but to rec-

* This seems to be the letter to which the lord keeper returned an answer, September 22, 1617, printed in his works.

† At Windsor, according to Sir Antony Weldon, who may perhaps be believed in such a circumstance as this. *See Court and Character of King James I.* p. 122.

tify the work, having in his royal contemplation rather posterity than the present.

The two points touching the peace of the middle shires, I have put to a consult with some selected judges.

The cause of the Egertons I have put off, and shall presently enter into the treaty of accord, according to his Majesty's commandment, which is well tasted abroad in respect of his compassion towards those ancient families.

God ever preserve and prosper your lordship, according to the faithful and fervent wishes of

Your lordship's true friend and devoted servant,

FR. BACON.

York-house, Oct. 11, 1617.

TO THE EARL OF BUCKINGHAM.

My very good lord,

I have reformed the ordinance according to his Majesty's corrections, which were very material. And for the first of *phraxis non placet*, I understand his Majesty, nay farther, I understand myself, the better for it. I send your lordship therefore six privy seals; for every court will look to have their several warrant. I send also two bills for letters patents to the two reporters: and for the persons, I send also four names, with my commendations of those two, for which I will answer upon my knowledge. The names must be filled in the blanks: and so they are to be returned.

For the business of the court of wards, your lordship's letter found me in the care of it. Therefore, according to his Majesty's commandment, by you signified, I have sent a letter for his Majesty's signature. And the directions themselves are also to be signed. These are not to be returned to me, lest the secret come out; but to be sent to my lord of Wallingford, as the packets used to be sent.

I do much rejoice to hear of his Majesty's health and good disposition. For me, though I am incessantly in business, yet the reintegration of your love maketh me find all things easy.

God preserve and prosper you.

Your lordship's true friend and devoted servant,

FR. BACON.

York-house, Oct. 18, 1617.

TO THE LORD KEEPER.*

My honourable lord,

I have delivered the judges' advice, touching the middle shires, unto his Majesty, who liketh it very well. As for the point of law, his Majesty will consider of it at more leisure, and then send you his opinion thereof. And so I rest

Your lordship's faithful friend and servant,

G. BUCKINGHAM.

Hinchinbroke, the 22nd of Oct. 1617.

TO THE LORD KEEPER.†

My honourable lord,

His Majesty hath spent some time with Sir Lionel Cranfield about his own business, wherewith he acquainted his Majesty. He hath had some conference with your lordship, upon whose report to his Majesty of your zeal and care of his service, which his Majesty acceepteth very well at your hands, he hath commanded Sir L. Cranfield to attend your lordship, to signify his farther pleasure for the furtherance of his service; unto whose relation I refer you. His Majesty's farther pleasure is, you acquaint no creature living with it, he having resolved to rely upon your care and trust only.

Thus wishing you all happiness, I rest

Your lordship's faithful friend and servant,

G. BUCKINGHAM.

Oct. 26, 1617.

SIR FRANCIS ENGLEFYLD‡ TO THE LORD KEEPER.

Right honourable,

Give me leave, I beseech your lordship, for want of other means, by this paper to let your lordship understand, that notwithstanding I rest in no contempt, nor have to my knowledge broken any order made by your lordship concerning the trust, either for the payment of money, or assignment of land; yet, by reason of my close imprisonment, and the unusual carriage of this cause against me, I can get no counsel, who will in open court deliver my case unto your lordship. I must therefore humbly leave unto your lordship's wisdom, how far your lordship will, upon my adversary's fraudulent bill exhibited by the wife without her husband's privity, extend the most powerful arm of your authority against me, who desire nothing but the honest performance of a trust, which I know not how to leave, if I would. So, nothing doubting but your lordship will do what appertaineth to justice, and the emi-

* Harl. MSS. Vol. 7006. † Ibid.

‡ This gentleman was very unfortunate in his behaviour, with regard to those who had the great seal; for in Hilary term of the year 1623-4, he was fined 3000*l.* by the star-chamber, for casting an imputation of bribery on the lord keeper Williams, bishop of Lincoln. MS. Letter of Mr. Chamberlain to Sir Dudley Carleton, dated at London, 1623-4. Sir Francis had been committed to the Fleet for a contempt of a decree in chancery; upon which he was charged, by Sir John Bennet, with having said before sufficient witness, that he could prove this holy bishop judge had been bribed by some that fared well in their causes. A few days after the sentence in the star-chamber, the lord keeper sent for Sir Francis, and told him, he would refute his foul aspersions, and prove upon him, that he scorned the pelf of the world, or to exact, or make lucre of any men: and that for his own part, he forgave him every penny of his fine, and would crave the same mercy towards him from the king. Bishop Hacket's *Life of Archbishop Williams*, Part I. pp. 83, 84.

nent place of equity your lordship holdeth, I must, since I cannot understand from your lordship the cause of my late close restraint, rest, during your lordship's pleasure,

Your lordship's close prisoner in the Fleet,

FR. ENGLEFYLD.

Oct. 28, 1617.

TO THE LORD KEEPER.*

MY HONOURABLE LORD,

I HAVE thought good to renew my motion to your lordship, in the behalf of my lord Huntingdon, my lord Stanhope, and Sir Thomas Gerard; for that I am more particularly acquainted with their desires; they only seeking the true advancement of the charitable uses, unto which the land, given by their grandfather, was intended: which, as I am informed, was meant by way of a corporation, and by this means, that it might be settled upon the schoolmaster, usher, and poor, and the coheirs to be visitors. The tenants might be conscionably dealt withal; and so it will be out of the power of any feoffees to abuse the trust; which, it hath been lately proved, have been hitherto the hinderance of this good work. These coheirs desire only the honour of their ancestor's gift, and wish the money, misemployed and ordered to be paid into court by Sir John Harper, may rather be bestowed by your lordship's discretion for the augmentation of the foundation of their ancestors, than by the censure of any other. And so I rest

Your lordship's servant,

G. BUCKINGHAM.

Theobald's, November 12.

Indorsed, 1617.

TO THE LORD KEEPER.†

MY HONOURABLE LORD,

THOUGH I had resolved to give your lordship no more trouble in matters of controversy depending before you, with what importance soever my letters had been; yet the respect I bear unto this gentleman hath so far forced my resolution, as to recommend unto your lordship the suit, which, I am informed by him, is to receive a hearing before you on Monday next, between Barnaby Leigh and Sir Edward Dyer, plaintiffs, and Sir Thomas Thynne ‡ defendant; wherein I desire your lordship's favour on the plaintiffs so far only as the justice of their cause shall require. And so I rest

Your lordship's faithful servant,

G. BUCKINGHAM.

Newmarket, the 15th of Nov.

Indorsed, 1617.

* Harl. MSS. Vol. 7006. † Ibid.

‡ Eldest son of Sir John Thynne, knight, who died November 21, 1604. This Sir Thomas's younger son by his first wife, Mary, daughter of George, lord Audley, was father of Thomas Thynne, Esq. assassinated by the followers of Count Coningsmark, February 12, 1682-3.

TO THE LORD KEEPER.§

MY HONOURABLE LORD,

THE certificate being returned upon the commission touching Sir Richard Haughton's alum-mines, I have thought fit to desire your lordship's furtherance in the business, which his Majesty, as your lordship will see by his letter, much affecteth as a bargain for his advantage, and for the present relief of Sir Richard Haughton. What favour your lordship shall do him therein, I will not fail to acknowledge, and will ever rest

Your lordship's faithful servant,

G. BUCKINGHAM.

Indorsed,

Received November 16, 1617.

TO THE LORD KEEPER.‖

MY HONOURABLE LORD,

I HAVE acquainted his Majesty with your lordship's letter, who liketh well of the judges' opinion you sent unto him, and hath pricked the sheriff of Buckinghamshire in the roll you sent, which I return signed unto your lordship.

His Majesty takes very well the pains you have taken in sending to Sir Lionel Cranfield; and desireth you to send to him again, and to quicken him in the business.

Your lordship's faithful friend and servant,

G. BUCKINGHAM.

His Majesty liketh well the course taken about his household, wherewith he would have your lordship, and the rest of his council, to go forward.

Newmarket, the 17th of November, 1617.

Indorsed,

My lord of Buckingham, showing his Majesty's approbation of the courses held touching the household.

TO THE LORD KEEPER.¶

MY HONOURABLE LORD,

UNDERSTANDING that Thomas Hukeley, a merchant of London, of whom I have heard a good report, intendeth to bring before your lordship in chancery a cause depending between him, in right of his wife, daughter of William Austen, and one John Horsmendon, who married another daughter of the said Austen; I have thought fit to desire your lordship to give the said Thomas Hukeley a favourable hearing when his cause shall come before you; and so far to respect him for my sake, as your lord-

§ Harl. MSS. Vol. 7006. ‖ Ibid.

¶ Ibid.

ship shall see him grounded upon equity and reason; which is no more than, I assure myself, your lordship will grant readily, as it is desired by

Your lordship's faithful friend and servant,
G. BUCKINGHAM.

Indorsed,
November 17, 1617.

TO THE EARL OF BUCKINGHAM.*

My very good lord,

The last letter of my lord's, whereof the conclusion indeed is a little *blunt*, as the king calleth it, was concluded in my absence, which hath been but once since I came to this town; and brought me by the clerk of the council, as I sat in chancery. Whereupon I retired to a little closet I have there, and signed it, not thinking fit to sever.

For my opinion, I despatched it the morrow following. And till Sir Lionel Cranfield † be able to execute his part in the sub-commission, it will, in my opinion, not be so fit to direct it. He crept to me yesternight, but he is not well. I did his Majesty's message to him touching the tobacco; and he said he would give his Majesty very real and solid satisfaction touching the same.

This is all for the present I shall trouble your lordship withal, resting ever

Your lordship's true friend and devoted servant,
FR. BACON.

November 20, 1617.

TO THE LORD KEEPER.‡

My honourable lord,

His Majesty liketh very well of the draught your lordship sent of the letter for the sub-commission, and hath signed it, as it was, without any alteration, and sent it to the lords. Which is all I have to write at this time, but that I ever rest

Your lordship's faithful friend and servant,
G. BUCKINGHAM.

Newmarket, the 2d of Decemb. 1617.

TO THE LORD KEEPER.§

My honourable lord,

His Majesty hath been pleased to refer a petition of one Sir Thomas Blackstones to your lordship, who being brother-in-law to a gentleman whom I much respect, Sir Henry Constable, I have at his request yielded to recommend his business so far to your lordship's favour, as you shall find his case to deserve compassion, and may stand with the rules of equity. And so I rest

Your lordship's faithful friend and servant,
G. BUCKINGHAM.

Newmarket, the 4th of December.
Indorsed, 1617.

TO THE EARL OF BUCKINGHAM.

My very good lord,

Your lordship may marvel, that together with the letter from the board, which you see passed so well, there came no particular letter from myself; wherein, though it be true, that now this very evening I have made even with the causes of chancery, and comparing with the causes heard by my lord,‖ that dead is, of Michaelmas term was twelve-month, I find them to be double so many and one more; besides that the causes that I despatch do seldom turn upon me again, as his many times did; yet nevertheless I do assure your lordship, that should have been no excuse to me, who shall ever assign both to the causes of the subject, yea, and to my health, but the leavings of times after his Majesty's business done. But the truth is, I could not speak with Sir Lionel Cranfield, with whom of necessity I was to confer about the names, till this afternoon.

First, therefore, I send the names, by his advice, and with mine own good allowance of those, which we wish his Majesty should select; wherein I have had respect somewhat to form, more to the avoiding of opposition, but most to the service.

Two most important effects his Majesty's letter hath wrought already: the one, that we perceive his Majesty will go through stitch; which goeth to the root of our disease. The other, that it awaketh the particular officers, and will make their own endeavours and propositions less perfunctory, and more solid and true for the future. Somewhat is to be done presently, and somewhat by seasonable degrees. For the present, my advice is, his Majesty would be pleased to write back to the table, that he doth well approve, that we did not put back or retard the good ways we were in of ourselves; and that we understood his Majesty's right: that his late direction was to give help, and not hinderance, to the former courses; and that he doth expect the propositions we have in hand, when they are finished: and that for the sub-commissions, he hath sent us the names he hath chosen out of those by us sent and propounded; and that he leaveth the particular directions from time to time, in the use of sub-commissioners, wholly to the table.

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* In answer to his lordship's letter from Newmarket, November 19, 1617, printed in lord Bacon's works.

† He was originally a merchant in the city of London, introduced to the king's knowledge by the earl of Northampton, and into his service by the earl of Buckingham, being the great projector for reforming the king's household, advancing the customs, and other services; for which he was made lord treasurer, baron Cranfield, and earl of Middlesex; but being accused by the house of commons for misdemeanors in his office, he had a severe sentence passed upon him by the lords, in 1624.

‡ Harl. MSS. Vol. 7006.

§ Ibid.

‖ Chancellor Ellesmere.

This I conceive to be the fairest way; first to seal the sub-commission without opening the nature of their employments, and without seeming that they should have any immediate dependence upon his Majesty, but merely upon the table.

As for that which is to be kept in breast, and to come forth by parts, the degrees are these:

First, to employ the sub-commissioners in the re-considering of those branches, which the several officers shall propound.

Next, in taking consideration of other branches of retrenchment, besides those which shall be propounded.

The third, to take into consideration the great and huge arrears and debts in every office; whether there be cause to abate them upon deceit or abuse; and at least how to settle them best, both for the king's honour, and avoiding of clamour, and for the taking away, as much as may be, that same ill influence and effect, whereby the arrear past destroys the good husbandry and reformation to come.

The fourth is to proceed from the consideration of the retrenchments and arrears to the improvements.

All these four, at least the last three, I wish not to be stirred in till his Majesty's coming.

God ever preserve and prosper you.

Your lordship's true friend and devoted servant,

FR. BACON.

Your lordship will be pleased to have a little care of the bestowing of this letter.

York-house, this 6th of December, 1617.

TO THE LORD KEEPER.*

My honourable lord,

Lest Mr. Secretary † should be come away before the delivery of this packet, I have thought fit to direct it to your lordship, with this letter to your lordship about the court of wards, and another to the lords from his Majesty. Which is all I have now to write, but that I ever rest

Your lordship's faithful friend and servant,

G. BUCKINGHAM.

Newmarket, the 7th of December, 1617.

TO THE LORD KEEPER.‡

My honourable lord,

I have acquainted his Majesty with your lordship's letter, who hath followed your directions therein, and written to the lords accordingly. Which is all I have now to write to your lordship, but that I shall ever rest

Your lordship's faithful friend and servant,

G. BUCKINGHAM

Newmarket, the 9th day of December, 1617.

Indorsed,

My lord of Buckingham to your lordship, shewing the king's liking of your opinion and choice of names for sub-commission.

TO THE EARL OF BUCKINGHAM.

My very good lord,

Your lordship's letters patents § are ready. I would be glad to be one of the witnesses at the delivery; and therefore, if the king and your lordship will give me leave, I will bring it to-morrow at any hour shall be appointed.

Your lordship's ever,

FR. BACON.

New-Year's eve, 1617.

I was bold to send your lordship, for your new-year's gift, a plain cap of essay, in token, that if your lordship in any thing shall make me your sayman, I will be hurt before your lordship shall be hurt. I present therefore to you my best service, which shall be my All-Years' gift.

TO THE EARL OF BUCKINGHAM.

My very good lord,

Sir George Chaworth and I am agreed, so that now I shall retain the grace of my place, and yet be rewarded. The king hath no ill bargain; for he hath four times as much as he was offered by Sir George of increase; and yet I take upon me to content my servants, and to content him. Nevertheless, I shall think myself pleasured by his Majesty, and do acknowledge, that your lordship hath dealt very honourably and nobly with me.

I send enclosed a letter, whereby your lordship signifieth his Majesty's pleasure to me; and I shall make the warrant to Mr. Attorney. I desire it may be carried in privateness. I ever rest

Your lordship's true friend and devoted servant,

FR. BACON.

This New-Year's eve, 1617.

TO SIR JAMES FULLERTON.‖

I presume to send his highness this pair of small candlesticks, that his light, and the light of his pos-

* Harl. MSS. Vol. 7006.

† Sir Thomas Lake. His colleague, secretary Winwood, died October 27, 1617; and Sir Robert Naunton succeeded to the post of secretary, January 8, 1617-18, from that of surveyor of the court of wards.

‡ Harl. MSS. Vol. 7006.

§ For the title of Marquis of Buckingham to himself and the male heirs of his body.

‖ He had been surveyor of the lands to prince Charles, when duke of York, and was groom of the stole to him, when king. He died in January, 1630-1.

terity, upon the church and commonwealth, may never fail. I pray you do me the favour to present it to his highness, with my best and humble service.

Your most affectionate and assured friend,

FR. BACON, C. S.

TO THE LORD CHANCELLOR.*

My honourable lord,

I have heretofore recommended unto your lordship the determination of the cause between Sir Rowland Egerton and Edward Egerton,† who, I understand, did both agree, being before your lordship, upon the values of the whole lands. And as your lordship hath already made so good an entrance into the business, I doubt not but you will be as noble in farthering the full agreement between the parties: whereunto, I am informed, Sir Rowland Egerton is very forward, offering on his part that, which to me seemeth very reasonable, either to divide the lands, and his adverse party to choose, or the other to divide, and he to choose. Whereupon my desire to your lordship is, that you would accordingly make a final end between them, in making a division, and setting forth the lands, according to the values agreed upon by the parties themselves. Wherein, besides the charitable work your lordship shall do in making an end of a controversy between those, whom name and blood should tie together, and keep in unity, I will acknowledge your favour as unto myself, and will ever rest

Your lordship's faithful servant,

G. BUCKINGHAM.

Theobald's, January 9, 1617.

TO THE LORD CHANCELLOR.‡

My honourable lord,

His Majesty having given order to Mr. Solicitor§ to acquaint your lordship with a business touching ale-houses,‖ that upon consideration thereof you might certify your opinion unto his Majesty, whether it be fit to be granted or not; I have thought fit to desire your lordship to give it what favour and furtherance you may, if you find it reasonable and not prejudicial to his Majesty's service, because it concerneth Mr. Patrick Maule, and my brother, Christopher Villiers, whose benefit I have reason to wish and advance by any just courses. And so I rest

Your lordship's faithful servant,

G. BUCKINGHAM.

Royston, Jan. 11th, 1617.

TO THE LORD CHANCELLOR.¶

My honourable lord,

Sir John Cotton** having acquainted me with a petition he intended to exhibit to his Majesty, that without any apparent fault committed by him, he was put from his office of *Custos Rotulorum*; I have persuaded him to forbear the presenting of his petition, until I had written to your lordship, and received your answer. I have therefore thought fit to signify unto your lordship, that he is a gentleman, of whom his Majesty maketh good esteem, and hath often occasion to use his service: and therefore, besides that he is a man of good years, and hath served long in the place, I know his Majesty, out of these respects, will be loth he should receive any disgrace. I desire therefore to understand from your lordship the reasons of his remove, that, if I cannot give satisfaction to the gentleman himself, I may at least make answer to his Majesty for that act of your lordship's, which is alleged to be very unusual, unless upon some precedent misdemeanor of the party. Thus, having in this point discharged my part in taking the best course I could, that no complaint should come against you to the king, I rest

Your lordship's faithful friend,

G. BUCKINGHAM.

Newmarket, Jan. 16, 1617.

TO SIR HENRY YELVERTON, ATTORNEY-GENERAL.

Mr. Attorney,

Whereas there dependeth before me in chancery a great cause of tithes concerning the benefices of London, though in a particular, yet, by consequence leading to a general; his Majesty, out of a great religious care of the state, both of church and city, is graciously pleased, that before any judicial sen-

* Sir Francis Bacon had that title given him January 4.

† This was one of the causes mentioned in the charge of the House of Commons against the lord Bacon; in his answer to which, he acknowledged, that some days after perfecting his award, which was done with the advice and consent of the lord chief justice Hobart, and publishing it to the parties, he received 300*l.* of Mr. Edward Egerton, by whom, soon after his coming to the seal, he had likewise been presented with 400*l.* in a purse.

‡ Harl. MSS. Vol. 7006.

§ Sir Thomas Coventry.

‖ The lord chancellor, in his letter to the marquis of Buckingham, dated January 25, 1617, printed in his works, has the following passage: "For the suit of the *ale-houses*, which concerneth your brother, Mr. Christopher Villiers, and Mr. Patrick Maule, I have conferred with my lord chief justice and Mr. Solicitor thereupon, and there is a scruple in it, that it should be one of the grievances put down in parliament; which if it be, I may not, in my duty and love to you, advise you to deal in it; if it be not, I will mould in the best manner, and help it forward." A patent for licensing ale-houses being afterwards granted to Sir Giles Mompesson and Sir Francis Mitchel, and greatly abused by them, they were punished for those abuses by the parliament, which met January 30, 1620-1.

¶ Harl. MSS. Vol. 7006.

** Of Lanwade, in Cambridgeshire, knight. He served many years as knight of the shire for that county, and died in 1620, at the age of seventy-seven. His eldest son, Sir John Cotton, was created a baronet, July, 14, 1641.

tence be pronouneed in ehancery, there be a eommission directed unto me, tha lord chancellor, lord treasurer, the lord privy-seal, and the lord ehamberlain; and likewise to the lord archbishop, the lord bishop of Winehester* and the bishop of Ely,† and also to the master of the rolls,‡ the two lord chief justices,§ justice Dodderidge, and justice Hutton, who formerly assisted me in the eause, to treat of some concord in a reasonable moderation between the ministers and the mayor and the eommonalty of London in behalf of the eitizens; and to make some pact and transaction between them by consent, if it may be; or otherwise to hear and certify their opinions touching the cause, that thereupon his Majesty may take such farther order, by directing of a proceeding in chancery, or by some other cause, as to his wisdom shall seem fit.

You will have eare to draw the commission with some preface of honour to his Majesty, and likewise to insert in the beginning of the eommission, that it was *de advisamento cancellarii*, (as it was indeed,) lest it should seem to be taken from the coort. So I eommit you to God's, &e.

FR. BACON, CANC.

January 19th, 1617.

TO THE MARQUIS OF BUCKINGHAM.

My veay oood load,

I do not easily fail towards gentlemen of quality to disgrace them. For I take myself to have some interest in the good wills of the gentlemen of England, which I keep and eherish for his Majesty's special service. And for this gentleman of whom you write, Sir John Cotton, I know no cause in the world why I should have displaced him, but that it was certified unto me, that it was his own desire to resign: wherein if I was abused, I will restore him. But if he did eonsent, and, now it is done, ehangeth his mind, then I would be loth to disgrace the other, that is eome in. Therefore I pray yonr lordship, that I may know and be informed from himself what passed touehing his eonsent; and I will do him reason.

Thus, with my thanks to your lordship, I will ever rest

Your lordship's true friend aod most devoted servant,

FR. BACON, CANC.

Jan. 20, 1617.

Indorsed,

To the Marquis of Buckingham, eoncerning Sir John Cotton's resigning the place of Custos Rotulorum of Cambridgeshire.

TO THE LORD CHANCELLOR.‖

My honourable load,

I thank your lordship for your favour to Sir George Tipping, in giving liberty nnto him to make his appearance before yoo after the holy-days, at my request; who, as I understand hy some friends of mine, who moved me to recommend him to your lordship's favour, is willing to conform himself in performance of the decree made in the ehaneery hy your lordship's predeeessor, hut that he is persuaded, that presently, upon the performance thereof, his son will make away the land that shall be conveyed nnto him: which being eome to Sir George from his aneestors, he desireth to preserve to his posterity. I desire your lordship's farther favour therefore unto him, that you will find out some course, how he may be exempted from that fear of the sale of his lands, whereof he is ready to acknowledge a fine to his son, and to his heirs by Anne Pigot; and, they failiog, to his son's heirs males, and, for want thereof, to any of his son's or hrethren's heirs males, and so to the heirs general of his father and himself, by lineal descent, and the remainder to the erown. This offer, whieh seemeth very reasonable, and for his Majesty's advantage, I desire your lordship to take into your consideration, and to show him what favour you may for my sake; which I will readily acknowledge, and ever rest

Yonr lordship's faithful servant,

G. BUCKINGHAM.

Newmarket, Jan. 23, 1617.

TO THE LORD CHANCELLOR.¶

My honouaale lord,

Since I received yonr lordship's letter, Sir Lionel Cranfield being here, hath informed his Majesty of the whole proceeding in his business of the household; which his Majesty liketh very well, and is glad it is approved by your lordship, of whose care and pains therein he receiveth very good satisfaction.

In the business touehing Sir John Cotton, your lordship dealeth as nobly as ean be desired; and so, if it should eome in question before his Majesty, I would answer in your behalf. I leave Sir John Cotton to inform your lordship by his letter of the business, and ever rest

Your lordship's faithful servant,

G. BUCKINGHAM.

Newmarket, Jan. 24, 1617.

TO THE LORD CHANCELLOR.**

My honouable lorn,

I have been entreated by a gentleman, whom I moeh respect, to reeommend to your lordship's favour Mr. John Huddy, between whom and Mr. Riehard Hnddy there is, as I am informed, a cause

* Dr. James Montagu. † Dr. Lancelot Andrews. ‡ Sir Julius Cæsar. § Sir Henry Montagu of the king's bench, and Sir Henry Hobart of the common pleas. ‖ Harl. MSS. Vol. 7006. ¶ Ibid. ** Ibid.

to be heard before your lordship, in the chancery, on Saturday next. My desire unto your lordship is, that you would show the said John Huddy what favour you lawfully may, and as his cause will bear, when it cometh before you, for my sake. Which I will not fail to acknowledge, ever resting

Your lordship's faithful servant,

G. BUCKINGHAM.

Newmarket, Jan. 28, 1617.

TO THE LORD CHANCELLOR.*

My honourable lord,

I understand that his Majesty hath been pleased to refer a suit unto him by two of his servants, Robert Maxwell and John Hunt, for the making of sheriffs and escheators patents, to your lordship's consideration. My desire unto your lordship on their behalf is, that you would show them thus much favour for my sake, and with as much expedition as may be, and your lordship's other occasions may permit, to certify your opinion thereof unto his Majesty † which I will be ready to acknowledge, and ever rest

Your lordship's faithful servant,

G. BUCKINGHAM.

Newmarket, Feb. 4, 1617.

TO THE LORD CHANCELLOR.†

My honourable lord,

Though I had resolved not to write to your lordship in any matter between party and party; yet at the earnest request of my noble friend, the lord Norris, to whom I account myself much beholden, I could not but recommend unto your lordship's favour a special friend of his, Sir Thomas Monk, who hath a suit before your lordship in the chancery ‡ with Sir Robert Basset; which, upon the report made unto me thereof, seemeth so reasonable, that I doubt not but the cause itself will move your lordship to favour him, if upon the hearing thereof it shall appear the same unto your lordship, as at the first sight it doth unto me. I therefore desire your lordship to show in this particular what favour you lawfully may, for my sake, who will account it as done unto myself; and will ever rest

Your lordship's faithful servant,

G. BUCKINGHAM.

Newmarket, Feb. 4, 1617.

* Harl. MSS. Vol. 7006. † Ibid.

‡ Lord Bacon was afterwards accused by the House of Commons of having received of Sir Thomas Monk 100 pieces; which he did not deny, but alleged, that it was after the suit was ended.

§ Harl. MSS. Vol. 7006.

TO THE MARQUIS OF BUCKINGHAM.

My very good lord,

I have sent enclosed a letter to his Majesty about the public charge I am to give the last star-chamber day, which is this day sevennight, to the judges and justices before the circuit. I pray deliver it to his Majesty with speed. I send also some papers appertaining to that business, which I pray your lordship to have in readiness, if his Majesty call for them. I ever rest

Your lordship's true friend and devoted servant,

FR. BACON, CANC.

February 6, 1617.

TO THE LORD CHANCELLOR.§

My honourable lord,

His Majesty marvelleth, that he heareth nothing of the business touching the gold and silver thread; ‖ and therefore hath commanded me to write unto your lordship to hasten the despatch of it; and to give him as speedy an account thereof as you can. And so I rest

Your lordship's faithful servant,

G. BUCKINGHAM.

Newmarket, Feb. 7.

Indorsed, 1617.

TO THE LORD CHANCELLOR.¶

My honourable lord,

I understand by this bearer, Edward Hawkins, how great pains your lordship hath taken, in the business which I recommended to you concerning him, and how favourably your lordship hath used him for my sake. For which I give your lordship many thanks, and will be ever ready to acknowledge your favour toward him by all the testimonies of

Your lordship's faithful friend,

G. BUCKINGHAM.

Theobald's, Feb. 12, 1617.

TO THE LORD CHANCELLOR.**

My honourable lord,

I have acquainted his Majesty with your letter, who liketh well of the course you mention in the end of your letter, and will speak with you farther

‖ A patent for the monopoly of which was granted to Sir Giles Mompesson and Sir Francis Mitchel, who were punished for the abuse of that patent by the parliament, which met January 30, 1620-1.

¶ Harl. MSS. Vol. 7006. ** Ibid.

of it at his return to London. In the mean time he would have your lordship give direction to the master of the rolls* and Mr. Attorney † to stay the examination. And so I rest

Your lordship's most assured to do you service,

G. BUCKINGHAM.

Hampton-Court, March 18, 1617.

TO THE LORD CHANCELLOR OF IRELAND.‡

My lord chancellor,

I will not have you account the days of my not answering your letter. It is a thing imposed upon the multitude of my business to lodge many things faithfully, though I make no present return.

Your conjunction and good understanding with the deputy § I approve and commend; for I ever loved entire and good compositions, which was the old physic, better than fine separations.

Your friendly attributes I take as effects of affection; which must be causes of any good offices, wherewith I can requite you.

We conceive that kingdom is in growth. God send soundness to the increase; wherein I doubt not but your lordship will do your part. God keep you.

Your lordship's very loving friend,

FR. BACON, CANC.

York-house, April 15, 1618.

TO THE LORD CHIEF JUSTICE OF IRELAND.‖

My lord chief justice,

I thank you for your letter, and assure you, that you are not deceived, neither in the care I have of the public in that state, nor in my good wishes, and the effects thereof, when it shall lie in my power towards yourself.

I am glad to receive your testimony of my lord deputy, both because I esteem your judgment, and because it concurreth with my own.

The materials of that kingdom, which is trade and wealth, grow on apace. I hope the form, which giveth the best living of religion and justice, will not be behind, the rather by you, as a good instrument. I rest

Your lordship's assured friend,

FR. BACON, CANC.

York-house, ** of April, 1618.

* Sir Julius Cæsar.

† Sir Henry Yelverton.

‡ Dr. Thomas Jones, archbishop of Dublin, who died April 10, 1619.

§ Sir Oliver St. John, afterwards viscount Grandison. He died at Battersea in Surrey, December 29, 1630, aged seventy.

‖ Sir William Jones, to whom upon his being called to that post, the lord keeper made a speech, printed in his works.

¶ Harl. MSS. Vol. 7006.

** A gentleman eminent for his learning, especially in the Hebrew language, in which he had been instructed by the famous Hugh Broughton, who died in 1612. He was son of Mr. William Cotton, citizen and draper of London, and had an estate at Bellaport in Shropshire, where he resided, till he came to live at London at the request of Sir Allen Cotton, his father's younger brother, who was lord mayor of that city in 1625. Sir Rowland was the first patron of the learned Dr. Lightfoot, and encouraged him in the prosecution of his studies of the Hebrew language and antiquities.

†† Harl. MSS. Vol. 7006. ‡‡ Ibid.

§§ This seems to be one of the causes, on account of which lord Bacon was afterwards accused by the house of commons; in answer to whose charge he admits, that in the cause of Sir Ralph Hanabye there being two degrees, one for the inheritance, and the other for goods and chattels; some time after the first decree, and before the second, there was 500*l.* delivered to him by Mr. Tobie Matthew; nor could his lordship deny, that this was upon the matter *pendente lite*.

TO THE LORD CHANCELLOR.¶

My honourable lord,

Understanding that there is a suit depending before your lordship, between Sir Rowland Cotton,** plaintiff, and Sir John Gawen, defendant, which is shortly to come to a hearing; and having been likewise informed, that Sir Rowland Cotton hath undertaken it in the behalf of certain poor people; which charitable endeavour of his, I assure myself, will find so good acceptation with your lordship, that there shall be no other use of recommendation: yet, at the earnest request of some friends of mine, I have thought fit to write to your lordship in his behalf, desiring you to show him what favour you lawfully may, and the cause may bear, in the speedy despatch of his business; which I shall be ever ready to acknowledge, and rest

Your lordship's most devoted to serve you,

G. BUCKINGHAM.

Whitehall, April 20, 1618.

TO THE LORD CHANCELLOR.††

My honourable lord,

I will not go about to excuse mine own fault, by making you believe his Majesty was backward in your business; but upon the first motion, he gave me directions for it; which it was my negligence, as I freely confess, that I have no sooner performed, having not been slack in moving his Majesty, but in despatching your man. All is done, which your lordship desired, and I will give order, according to his Majesty's directions, so that your lordship shall not need to trouble yourself any farther, but only to expect the speedy performance of his Majesty's gracious pleasure.

I will take the first opportunity to acquaint his Majesty with the other business, and will ever rest

Your lordship's faithful friend and servant,

G. BUCKINGHAM.

Theobald's, May 8, [1618].

TO THE LORD CHANCELLOR.‡‡

My honourable good lord,

Whereas in Mr. Hansbye's cause,§§ which formerly, by my means, both his Majesty and myself

recommended to your lordship's favour, your lordship thought good, upon a hearing thereof, to decree some part for the young gentleman, and to refer to some masters of the chancery, for your farther satisfaction, the examination of witnesses to this point; which seemed to your lordship to be the main thing your lordship doubted of, whether or no the leases, conveyed by old Hansbye to young Hansbye by deed, were to be liable to the legacies, which he gave by will; and that now I am credibly informed, that it will appear upon their report, and by the depositions of witnesses, without all exception, that the said leases are no way liable to those legacies; these shall be earnestly to entreat your lordship, that upon consideration of the report of the masters, and depositions of the witnesses, you will, for my sake, show as much favour and expedition to young Mr. Hansbye in this cause, as the justness thereof will permit. And I shall receive it at your lordship's hands as a particular favour.

So I take my leave of your lordship, and rest

Your lordship's faithful friend and servant,

G. BUCKINGHAM.

Greenwich, June 12, 1618.

TO THE LORD CHANCELLOR.*

My honourable lord,

Understanding, that the cause depending in the chancery between the lady Vernon and the officers of his Majesty's household is now ready for a decree; though I doubt not, but, as is Majesty hath been satisfied of the equity of the cause on his officers' behalf, who have undergone the business, by his Majesty's command, your lordship will also find their cause worthy of your favour; yet I have thought fit once again to recommend it to your lordship, desiring you to give them a speedy end of it, that both his Majesty may be freed from farther importunity, and they from the charge and trouble of following it: which I will be ever ready to acknowledge as a favour done unto myself, and always rest

Your lordship's faithful friend and servant,

G. BUCKINGHAM.

Greenwich, June 15, 1618.

TO THE LORD CHANCELLOR †

My honourable lord,

I wrote unto your lordship lately in the behalf of Sir Rowland Cotton, that then had a suit in dependence before your lordship and the rest of my lords in the star-chamber. The cause, I understand, hath gone contrary to his expectation; yet he acknowledges himself much bound to your lordship for the noble and patient hearing he did then receive; and he rests satisfied, and I much beholden to your lordship, for any favour it pleased your lordship to afford him for my cause. It now rests only in your lordship's power for the assessing of costs; which, because, I am certainly informed, Sir Rowland Cotton had just cause of complaint, I hope your lordship will not give any against him. And I do the rather move your lordship to respect him in it, because it concerns him in his reputation, which I know he tenders, and not the money which might be imposed upon him; which can be but a trifle. Thus presuming of your lordship's favour herein, which I shall be ready ever to account to your lordship for, I rest

Your lordship's most devoted to serve you,

G. BUCKINGHAM.

June 19, 1618.

TO THE LORD CHANCELLOR.‡

My honourable lord,

Whereas it hath pleased his Majesty to recommend unto your consideration a petition exhibited by Mr. Fowle, together with the grievances and request for the rectifying of the work of gold and silver thread; and now understandeth, that your lordship hath called unto you the other commissioners in that case, and spent some time to hear what the opposers could object, and perceiveth by a relation of a good entrance you have made into the business; and is now informed, that there remaineth great store of gold and silver thread in the merchants' hands brought from foreign parts, besides that which is brought in daily by stealth, and wrought here by underhand workers; so that the agents want vent, with which inconveniences, it seemeth the ordinary course of law cannot so well meet: and yet they are inforced, for freeing of clamour, to set great numbers of people on work; so that the commodity lying dead in their hands, will in a very short time grow to a very great sum of money: To the end therefore, that the undertakers may not be disheartened by these wrongs and losses, his Majesty hath commanded me to write unto your lordship, to the end you might bestow more time this vacation in prosecuting the course you have so worthily begun, that all differences being reconciled, the defects of the commission may be also amended, for prevention of farther abuses therein; so as the agents may receive encouragement to go on quietly in the work without disturbance. And I rest

Your lordship's faithful friend and servant,

G. BUCKINGHAM.

From Bewly, the 20th day of Aug. 1618.

TO THE LORD CHANCELLOR.

Most honourable lord,

Herewithal I presume to send a note enclosed, both of my business in chancery, and with my lord Roos, which it pleased your lordship to demand of

* Harl. MSS. Vol. 7006.

† Ibid.

‡ Ibid.

me, that so you might better do me good *in utroque genere*. It may please your lordship, after having perused it, to commend it over to the care of Mr. Meantys for better custody.

At my parting last from your lordship, the grief I had to leave your lordship's presence, though but for a little time, was such, as that being accompanied with some small corporal indisposition, that I was in, made me forgetful to say that, which now for his Majesty's service I thought myself bound not to silence. I was credibly informed and assured, when the Spanish ambassador went away, that howsoever Ralegh and the prentices* should fall out to be proceeded withal, no more instances would be made hereafter on the part of Spain for justice to be done ever in these particulars; but that if slackness were used here, they would be laid up in the deck, and would serve for materials (this was the very word) of future and final discontentments. Now as the humour and design of some may carry them towards troubling of the waters; so I know your lordship's both nature and great place require an appeasing them at your hands. And I have not presumed to say this little out of any mind at all that I may have to meddle with matters so far above me, but out of a thought I had, that I was tied in duty to lay thus much under your lordship's eye; because I know and consider of whom I heard that speech, and with how great circumstances it was delivered.

I beseech Jesus to give continuance and increase to your lordship's happiness; and that, if it may stand with his will, myself may one day have the honour of casting some small mite into that rich treasury. So I humbly do your lordship reverence, and continue

The most obliged of your lordship's many faithful servants,

TOBIE MATTHEW.

Nottingham, August 21, 1618.

TO MR. (AFTERWARDS SIR) ISAAC WAKE, HIS MAJESTY'S AGENT AT THE COURT OF SAVOY.

MR. WAKE,

I HAVE received some letters from you; and hearing from my lord Cavendish† how well he affects you, and taking notice also of your good abilities and services in his Majesty's affairs, and not forgetting the knowledge I had, when young, of your good father,‡ I thought myself in some measure tied not to keep from you my good opinion of you, and my desire to give you any furtherance in your fortunes and occasions, whereof you may take knowledge and liberty to use me for your good. Fare you well.

Your very loving friend,

FR. VERULAM,§ CANC.

York-house, this 1st of Sept. 1618.

TO THE LORD CHANCELLOR.‖

MY HONOURABLE LORD,

HIS Majesty is desirous to be satisfied of the fitness and conveniency of the gold and silver thread business; as also of the profit, that shall any way accrue unto him thereby. Wherefore his pleasure is, that you shall, with all convenient speed, call unto you the lord chief justice of the king's bench,¶ the attorney-general,** and the solicitor,†† and consider with them of every of the said particulars, and return them to his Majesty, that thereupon he may resolve what present course to take for the advancement of the execution thereof. And so I rest

Your lordship's faithful servant,

G. BUCKINGHAM.

Theobald's, the 4th October, 1618.

TO THE LORD CHANCELLOR.‡‡

MY HONOURABLE LORD,

I HAVE been desired, by some friends of mine, in the behalf of Sir Francis Englefyld, to recommend his cause so far unto your lordship, that a peremptory day being given by your lordship's order for the perfecting of his account, and for the assignment of the trust, your lordship would take such course therein, that the gentleman's estate may be redeemed from farther trouble, and secured from all danger, by engaging those, to whom the trust is now transferred by your lordship's order, to the performance of that, whereunto he was tied. And so not doubting but your lordship will do him what lawful favour you may herein, I rest

Your lordship's faithful friend and servant,

G. BUCKINGHAM.

Indorsed,

Received October 14, 1618.

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* Who on the 12th of July, 1618, had insulted Gondomar, the Spanish ambassador, on account of a boy's being hurt by him as he was riding. [*Camdeni Annales Regis Jacobi I.* p. 33.] They were proceeded against by commissioners at Guildhall on Wednesday the 12th of August following; seven being found guilty, and adjudged to six months' imprisonment, and to pay 500*l.* a piece. Two others were acquitted. MS. letter of Mr. Chamberlain to Sir Dudley Carleton, London, August 15, 1618.

† William Cavendish, son and heir of William, created baron Cavendish of Hardwicke in Derbyshire, in May 1605, and earl of Devonshire, July 12, 1618.

‡ Arthur Wake, rector of Billing in Northamptonshire, master of the hospital of St. John in Northampton, and canon of Christ-Church, Oxford.

§ He had been created lord Verulam on the 12th of July, 1618.

‖ Harl. MSS Vol. 7006.

¶ Sir Henry Montagu.

** Sir Henry Yelverton.

†† Sir Thomas Coventry.

‡‡ Harl. MSS. Vol. 7006.

TO THE KING, CONCERNING THE FORM AND MANNER OF PROCEEDING AGAINST SIR WALTER RALEGH.*

MAY IT PLEASE YOUR MOST EXCELLENT MAJESTY,

ACCORDING to your commandment given unto us, we have upon divers meetings and conferences, considered what form and manner of proceeding against Sir Walter Ralegh might best stand with your Majesty's justice and honour, if you shall be pleased, that the law shall pass upon him.

And, first, we are of opinion, that Sir Walter Ralegh being attainted of high-treason, which is the highest and last work of law, he cannot be drawn in question judicially for any crime or offence since committed. And therefore we humbly present two forms of proceeding to your Majesty: the one, that together with the warrant to the lieutenant of the Tower, if your Majesty shall so please, for his execution, to publish a narrative in print of his late crimes and offences: which, albeit your Majesty is not bound to give an account of your actions in these to any but only to God alone, we humbly offer to your Majesty's consideration, as well in respect of the great effluxion of time since his attainder, and of his employment by your Majesty's commission, as for that his late crimes and offences are not yet publicly known. The other form, whereunto, if your Majesty so please, we rather incline, is, that where your Majesty is so renowned for your justice, it may have such a proceeding, as is nearest to legal proceeding; which is, that he be called before the whole body of your council of state, and your principal judges, in your council-chamber; and that some of the nobility and gentlemen of quality be admitted to be present to hear the whole proceeding, as in like cases hath been used. And after the assembly of all these, that some of your Majesty's counsellors of state, that are best acquainted with the case, should openly declare, that this form of proceeding against Sir Walter is holden, for that he is civilly dead. After this your Majesty's council learned to charge his acts of hostility, depredation, abuse as well of your Majesty's commission, as of your subjects under his charge, impostures, attempt of escape, and other his misdemeanors. But for that which concerns the French, wherein he was rather passive than active, and without which the charge is complete, we humbly refer to your Majesty's consideration, how far that shall be touched. After which charge so given, the examinations read, and Sir Walter heard, and some to be confronted against him, if need be, then he is to be withdrawn and sent back; for that no sentence is, or can be, given against him. And after he is gone, then the lords of the council and judges to give their advice to your Majesty, whether in respect of these subsequent offences upon the whole matter, your Majesty, if you so please, may not with justice and honour give warrant for his execution upon his attainder. And of this whole proceeding we are of opinion, that a solemn act of council should be made, with a memorial of the whole presence. But before this be done, that your Majesty may be pleased to signify your gracious direction herein to your council of state; and that your council learned, before the calling of Sir Walter, should deliver the heads of the matter, together with the principal examinations touching the same, wherewith Sir Walter is to be charged, unto them, that they may be perfectly informed of the true state of the case, and give their advice accordingly. All which nevertheless we, in all humbleness, present and submit to your princely wisdom and judgment, and shall follow whatsoever it shall please your Majesty to direct us herein, with all dutiful readiness.

Your Majesty's most humble and faithful servants, &c.

York-house, this 18th of October, 1618.

TO THE LORD CHANCELLOR.†

MY HONOURABLE LORD,

WHEREAS there is a cause depending in the court of chancery between one Mr. Francis Foliambe and Francis Hornsby, the which already hath received a decree, and is now to have another hearing before yourself; I have thought fit to desire you to show so much favour therein, seeing it concerns the gentleman's whole estate, as to make a full arbitration and final end, either by taking the pains in ending it yourself, or preferring it to some other whom your lordship shall think fit: which I shall acknowledge as a courtesy from your lordship; and ever rest

Your lordship's faithful friend and servant,

G. BUCKINGHAM.

Hinchinbroke, the 22d of October, 1618.

TO THE MARQUIS OF BUCKINGHAM.

MY VERY GOOD LORD,

I SEND the commission for making Lincoln's Inn-Fields into walks for his Majesty's signature. It is without charge to his Majesty.

We have had my lord of Ormonde‡ before us. We could not yet get him to answer directly, whether he would obey the king's award or no. After we had endured his importunity and impertinences, and yet let him down to this, that his Majesty's award

* *He was beheaded October 29, 1618, the day of the inauguration of the lord mayor of London.*

† *Harl. MSS. Vol. 7006.*

‡ *Walter, earl of Ormonde, grandfather of James the first duke of Ormonde. This earl, upon the death of Thomas, earl of Ormonde and Ossory, succeeding to those honours, should have inherited likewise the greatest part of the estate: but his right was contested by Sir Richard Preston lord Dingwell, supported by the favour of king James I. who made an award, which Walter, earl of Ormonde, conceiving to be unjust, refused to submit to, and was, by the king's order, committed to the Fleet, where he remained eight years before the death of that king; but in 1625 recovered his liberty.*

was not only just and within his submission, but in his favour; we concluded in few words, that the award must be obeyed, and if he did refuse or impugn the execution of it in Ireland, he was to be punished by the justice of Ireland; if he did murmur or scandalize it here, or trouble his Majesty any more, he was to be punished in England. Then he asked, whether he might be gone. For that, we told him, his Majesty's pleasure was to be known.

Sir Robert Mansell hath promised to bring his summer account this day seven-night. God preserve and prosper you.

Your lordship's most obliged friend, and faithful servant,

FR. VERULAM, CANC.

November 12, 1618.

TO THE LORD CHANCELLOR.*

My honourable lord,

I send your lordship the commission signed by his Majesty, which he was very willing to despatch as a business very commendable and worthy to be taken in hand.

For the earl of Ormonde, his Majesty made no other answer, but that he hopeth that he is not so unmannerly, as to go away without taking leave of his Majesty.

For Sir Robert Mansell's account, his Majesty saith he is very slow, especially being but a summary account, and that he promised to bring it in before: and therefore would have him tied to the day he hath now set, without any farther delay.

This last his Majesty commanded me to put in after I had written and signed my letter.

Your lordship's faithful friend and servant,

G. BUCKINGHAM.

Royston, the 13th of November, 1618.

TO THE LORD CHANCELLOR.†

My honourable lord,

Having formerly moved your lordship in the business of this bearer, Mr. Wyche, of whom, as I understand, your lordship hath had a special care to do him favour, according to the equity of his cause; now seeing that the cause is shortly to be heard, I have thought fit to continue my recommendation of the business unto you, desiring your lordship to show what favour you lawfully may unto Mr. Wyche, according as the justness of the cause shall require: which I will acknowledge as a courtesy from your lordship, and ever rest

Your lordship's faithful friend and servant,

G. BUCKINGHAM.

Newmarket, the 18th of November, 1618.

* Harl. MSS. Vol. 7006.
† Ibid. ‡ Ibid.
§ "Declaration of the Demeanor and Carriage of Sir Walter Ralegh, Knight, as well in his Voyage, as in and since his return," &c. printed at London 1618, in quarto.

TO THE LORD CHANCELLOR.‡

My honourable lord,

I send your lordship the bill of the sheriff of Hereford and Leicester, pricked and signed by his Majesty, who hath likewise commanded me to send unto your lordship these additions of instructions, sent unto him by the surveyor and receiver of the court of wards; wherein, because he knoweth not what to prescribe without understanding what objections can be made, his pleasure is, that your lordship advise and consider of them, and send him your opinion of them, that he may then take such course therein, as shall be fit.

His Majesty commanded me to give you thanks for your care of his service: and so I rest

Your lordship's faithful servant,

G. BUCKINGHAM.

Newmarket, 22d of November.

Indorsed, 1618.

TO THE MARQUIS OF BUCKINGHAM.

My very good lord,

We have put the *Declaration* § touching Ralegh to the press with his Majesty's additions, which were very material, and fit to proceed from his Majesty.

For the prisoners, we have taken an account, given a charge, and put some particulars in examination for punishment and example.

For the pursuivants, we staid a good while for Sir Edward Coke's health; but he being not yet come abroad, we have entered into it; and we find faults, and mean to select cases for example: but in this swarm of priests and recusants we are careful not to discourage in general. But the punishment of some, that are notoriously corrupt, concern not the good, and will keep in awe those that are but indifferent.

The balance of the king's estate is in hand, whereof I have great care, but no great help.

The sub-committees for the several branches of treasure are well chosen and charged.

This matter of the king's estate for means is like a quarry, which digs and works hard; but then, when I consider it buildeth, I think no pains too much; and after term it shall be my chief care.

For the mint, by my next I will give account, for our day is Wednesday.

God ever preserve and prosper you.

Your lordship's

FR. VERULAM, CANC.

November 22, 1618.

Indorsed,

Of council-business.

TO THE LORD CHANCELLOR.*

My honourable lord,

I having understood by Dr. Steward, that your lordship hath made a deeree against him in the chancery, which he thinks very hard for him to perform: although I know it is unusual to your lordship to make any alterations, when things are so far past; yet in regard I owe him a good turn, which I know not how to perform but this way, I desire your lordship, if there be any place left for mitigation, your lordship would show him what favour you may, for my sake, in his desires, which I shall be ready to acknowledge as a great courtesy done unto myself; and will ever rest

Your lordship's faithful friend and servant,

G. BUCKINGHAM.

Newmarket, the 2nd of December, 1618.

TO THE LORD CHANCELLOR.†

My honourable lord,

I have written a letter unto your lordship, which will be delivered unto you in behalf of Dr. Steward; and besides, have thought fit to use all freedom with you in that, as in other things; and therefore have thought fit to tell you, that he being a man of very good reputation, and a stout man, that will not yield to any thing, wherein he conceiveth any hard course against him, I should be sorry he should make any complaint against you. And therefore, if you can advise of any course, how you may be eased of that burden, and freed from his complaint, without show of any fear of him, or any thing he can say, I will be ready to join with you for the accomplishment thereof: And so desiring you to excuse the long stay of your man, I rest

Your lordship's faithful friend and servant,

G. BUCKINGHAM.

From Newmarket, 3d of December, 1618.

TO THE MARQUIS OF BUCKINGHAM.

My very good lord,

Yesternight we despatched the lord Ridgeway's account. Good service is done. Seven or eight thousand pounds are coming to the king, and a good precedent set for accounts.

There came to the seal about a fortnight since a strange book passed by Mr. Attorney to one Mr. Hall; and it is to make subjects, for so is denization, and this to go to a private use, till some thousand pounds be made of it. The number one hundred denizens. And whereas all books of that nature had an exception of merchants, which importeth the king not much in his customs only, for that is provided for in the book, but many other ways, this takes in merchants and all. I acquainted the commissioners with it, and by one consent it is stayed. But let me counsel his Majesty to grant forth a commission of this nature, so to raise money for himself, being a flower of the crown: and Hall may be rewarded out of it; and it would be to principal persons, that it may be carried with election and discretion, whom to admit to denization, and whom not.

God ever bless and prosper you.

Your lordship's most faithful and obliged friend and servant,

December 8, 1618. FR. VERULAM, CANC.

TO THE LORD CHANCELLOR.‡

My honourable lord,

I thank your lordship for the favour, which, I understand, Sir Franeis Englefyld hath received from your lordship upon my last letter, whereunto I desire your lordship to add this one favour more, which is the same that I understand your lordship granted him at Christmas last, to give him liberty, for the space of a fortnight, to follow his business in his own person; whereby he may bring it to the more speedy end, putting in security, according to the ordinary course, to render himself prisoner again, as soon as that time is expired: which is all that I desire for him, and in which I will acknowledge your lordship's favour towards him; and ever rest

Your lordship's faithful friend and servant,

G. BUCKINGHAM.

Newmarket, the 10th of Decemb. 1618.

TO THE MARQUIS OF BUCKINGHAM.§

My very good lord,

I send you herewith the copy of a letter, which we, the commissioners for Ormonde's cause, have written to the deputy of Ireland, according to his Majesty's pleasure signified by Sir Franeis Blundell; which I humbly desire his Majesty would peruse, that if it do not attain his meaning, as we conveyed it, we may second it with a new letter.

We have appointed Monday morning for these mint businesses, referred by his Majesty to certain commissioners, and we will carry it *sine strepitu*.

The patent touching Guinea and Bynny for the trade of gold, staid first by myself, and after by his Majesty's commandment, we have now settled by consent of all parties.

Mr. Attorney, by my direction, hath made, upon his information exhibited into the star-chamber, a thundering motion against the transportation of gold by the Dutch; which all the town is glad of; and I have granted divers writs of *ne exeat regnum*, according to his Majesty's warrant.

Sir Edward Coke keeps in still, and we have miss of him; but I supply it as I may by my farther diligence. God ever bless you and keep you.

Your lordship's most faithful and bounden friend and servant,

December 11, 1618. FR. VERULAM, CANC.

* Harl. MSS. Vol. 7006. † Ibid. ‡ Ibid. § Ibid.

I forget not your doctor's * matter. I shall speak with him to-day, having received your lordship's letter; and what is possible, shall be done. I pray pardon my scribbling in haste.

TO THE LORD CHANCELLOR.†

My honourable lord,

I have acquainted his Majesty with your letters, who is very well pleased with your care of his service, in making stay of the grant of denizens upon the reason you allege, whereof his Majesty will speak farther with you at his return.

The letter, which you sent me about my lord of Ormonde's son, is not according to his Majesty's meaning; but I would have you frame another to my lord deputy to this purpose: "That his Majesty having seen a letter of his to Sir Francis Blundell, advertising, that the earl of Ormonde's son, and some other of his kindred, did victual and fortify their houses; his Majesty hath thereupon commanded you to write unto him, that if the ground of his information be true, which he may best know, that then he send for the said earl's son, and the principal of his kindred, to appear before him; and if they appear, and give him satisfaction, it is well; but if they refuse to appear, or give him not satisfaction though they appear, that then he assemble what forces he can, be they never so few, and go against them, that he may crush the rebellion in the egg."

I have remembered his Majesty, as I promised your lordship, about the naming you for a commissioner to treat with the Hollanders: But besides that you have so many businesses, both of the star-chamber, and others in the term-time, when this must be attended as well as in the vacation, whereby this would be either too great a toil to you, or a hinderance to his Majesty's service; he thinketh it could not stand with the honour of your place to be balanced with those that are sent from the state, so far unequal to his Majesty, and being themselves none of the greatest of the state. Therefore his Majesty holdeth it not fit or worthy of you to put you into such an employment, in which none of your predecessors, or any of the chief counsellors, have been ever used in this kind, but only in a treaty of marriage or conclusion of a peace; as when the constable of Castile was here, when the commissioners on both sides had their authority under the great seal of either kingdom, with direct relation to their sovereigns, far differing from this commission, which is now given to these men, and whereunto his Majesty is to frame the course of his. As for the part which concerneth Scotland, the choice hath not been made of the chancellor or archbishop of St. Andrew's, but of men nearer the rank of those, that come hither to treat. As yet his Majesty delayeth to give any commission at all, because he would first be informed from the lords, both of the points and form of their commission, which his Majesty hitherto understandeth to be, with authority to over-rule and direct their merchants in what they shall think fit; which if it be so, then his Majesty holdeth it fit, for his part, to appoint the whole body of the council with like power over his merchants. As for me, I shall be ever ready upon any occasion to show myself

Your lordship's faithful friend and servant,

G. BUCKINGHAM.

Newmarket, the 14th of December, 1618.

* Steward's. See above, p. 209.

TO THE LADY CLIFFORD.

My good lady and cousin,

I shall not be wanting in any thing, that may express my good affection and wishes towards your ladyship, being so near unto me, and the daughter of a father, to whom I was in the passages of my fortune much obliged. So with my loving commendations, in the midst of business, I rest

Your affectionate kinsman and assured friend,

FR. VERULAM, CANC.

York-house, this 25th of January, 1618.

TO THE LORD CHANCELLOR.‡

My honourable lord,

Lest my often writing may make your lordship conceive, that this letter hath been drawn from you by importunity, I have thought fit for preventing of any such conceit, to let your lordship know, that Sir John Wentworth, whose business I now recommend, is a gentleman, whom I esteem in more than an ordinary degree. And therefore I desire your lordship to show him what favour you can for my sake in his suit, which his Majesty hath referred to your lordship: which I will acknowledge as a courtesy unto me, and rest

Your lordship's faithful friend and servant,

G. BUCKINGHAM.

Newmarket, January 26th, 1618.

TO THE LORD CHANCELLOR.§

My honourable lord,

I being desired by a special friend of mine to recommend unto your lordship's favour the case of this petitioner, have thought fit to desire you, for my sake, to show him all the favour you may in this his desire, as you shall find it in reason to deserve; which I shall take as a courtesy from your lordship, and ever rest

Your lordship's faithful friend and servant,

G. BUCKINGHAM.

I thank your lordship for your favour to Sir John Wentworth, in the despatch of his business.

Newmarket, March 15, 1618.

† Harl. MSS. Vol. 7006. ‡ Ibid. § Ibid.

TO THE LORD CHANCELLOR.*

MOST HONOURABLE LORD,

IT may please your lordship, there was with me this day one Mr. Richard White, who hath spent some little time at Florence, and is now going into England. He tells me, that Galileo had answered your discourse concerning the flux and reflux of the sea, and was sending it unto me; but that Mr. White hindered him, because his answer was grounded upon a false supposition, namely, that there was in the ocean a full sea but once in twenty-four hours. But now I will call upon Galileo again. This Mr. White is a discreet and understanding gentleman, though he seem a little soft, if not slow: and he hath in his hands all the works, as I take it, of Galileo, some printed, and some unprinted. He hath his discourse of the flux and reflux of the sea, which was never printed; as also a discourse of the mixture of metals. Those which are printed in his hand are these: the *Nuncius sidereus;* the *Macchie solari;* and a third, *Delle Cose, che stanno su l'aqua*, by occasion of a disputation, that was amongst learned men in Florence about that which Archimedes wrote, *de insidentibus humido.*

I have conceived, that your lordship would not be sorry to see these discourses of that man; and therefore I have thought it belonging to my service to your lordship to give him a letter of this date, though it will not be there so soon as this. The gentleman hath no pretence or business before your lordship, but is willing to do your lordship all humble service; and therefore both for this reason, as also upon my humble request, I beseech your lordship to bestow a countenance of grace upon him. I am beholden to this gentleman; and, if your lordship shall vouchsafe to ask him of me, I shall receive honour by it. And I most humbly do your lordship reverence.

Your lordship's most obliged servant,

TOBIE MATTHEW.

Brussels, from my bed, the 14th of April, 1619.

TO THE LORD CHANCELLOR.†

MY HONOURABLE LORD,

HIS Majesty hath commanded me to signify unto your lordship, that it is his pleasure you put off the hearing of the cause between Sir Arthur Manwaring and Gabriel Dennis till toward the end of the term; because his Majesty is graciously pleased to be at the hearing thereof himself. And so I rest

Your lordship's faithful friend and servant,

G. BUCKINGHAM.

Royston, April 13, 1619.

* Harl. MSS. Vol. 7006. † Ibid.
‡ Ibid. § Ibid.
‖ Thomas Howard, earl of Suffolk, who had been made lord treasurer in 1614. He was accused of several misdemeanors in that office, together with his lady, and Sir John Bingley, her ladyship's agent; and an information preferred against them all in the star-chamber.

TO THE LORD CHANCELLOR, AND SIR LIONEL TANFIELD, LORD CHIEF BARON OF THE EXCHEQUER.‡

MY LORDS,

HIS Majesty having been moved by the duke of Savoy's ambassador in the behalf of Philip Bernardi, whom he is to send about some special employment over the seas to the duke of Savoy, that before his going, the business mentioned in this petition may be ended, hath commanded me to recommend the same unto your lordships' care, that with all expedition the cause may be heard and ended by your lordships, according to his Majesty's reference; or left to the determination of the court of chancery, where it is depending, and where the party assureth himself of a speedy end. And so I rest

Your lordship's very assured friend at command,

G. BUCKINGHAM.

Royston, the 19th of April, 1619.

TO THE MARQUIS OF BUCKINGHAM.§

MY VERY GOOD LORD,

I THINK fit to let your lordship understand what passed yesterday in the star-chamber touching Suffolk's‖ business.

There came to me the clerk of the court in the inner chamber, and told me, that my lord of Suffolk desired to be heard by his council at the ** sitting of the court, because it was pen * * * him.

I marvelled I heard not of it by Mr. Attorney, who should have let me know as much, that I might not be taken on the sudden in a cause of that weight.

I called presently Mr. Attorney to me, and asked him whether he knew of the motion, and what it was, and how he was provided to answer it. He signified to me, that my lord would desire to have the commission for examinations in Ireland to be returnable in Michaelmas term. I said, it might not be, and presently drew the council then present to me, and made Mr. Attorney repeat to them the passages past, and settled it, that the commission should be returnable the first day of the next term, and then republication granted, that it might, if accidents of wind and weather permit, come to hearing in the term. And upon motion in open court it was ordered accordingly.

God ever preserve and prosper you. I pray God this great easterly wind agree well with his Majesty.

Your lordship's most obliged friend and faithful servant,

FR. VERULAM, CANC.

May 6, 1619.

Indorsed,

Sent by Sir Gilbert Houghton.

TO THE MARQUIS OF BUCKINGHAM.

My very good lord,

I am much bounden to his Majesty, and likewise to your lordship. I see, by the late accesses I have had with his Majesty, and now by his royal and real favour,* that he loveth me, and acknowledgeth me for the servant I am, or desire to be. This in me must turn to a great alacrity to honour and serve him with a mind less troubled and divided. And for your lordship, may and doth daily receive addition, but cannot, nor never could, receive alteration. I pray present my humble thanks to his Majesty; and I am very glad his health confirmeth; and I hope to see him this summer at Gorhambury: there is sweet air as any is. God preserve and prosper you both. I ever rest

Your lordship's most obliged friend and faithful servant,

FR. VERULAM, CANC.

May 9, 1619.

MINUTE OF A LETTER TO THE COUNT PALATINE OF THE RHINE.

Monseigneur,

Je me tiens a grand honneur, qu'il plaise à vostre altesse de me cognoistre pour tel, que je suis, ou pour le moins voudrois estre, envers vous et vostre service: et m'estimeray heureux, si par mes counseils aupres du roy, ou autre devoir, je pourroy contribuer à vostre grandeur, dont il semble que Dieu vous a basti de belles occasions, ayant en contemplation vostre tres-illustre personne, non seulement comme tres eher allié de mon maistre, mais aussi, comme le meilleur appui, apres les roys de Grande Bretagne, de la plus saine partie de la Chrestienete.

Je ne puis aussi passer sous silence la grande raison, que vostre altesse fait a vostre propre honneur en choissisant tels conseilleurs et ministres d'estat, comme se monstre tres-bien estre monsieur le baron de Dhona et Monsieur de Plessen, estants personages si graves, diseretes et habiles; en quoy vostre jugement reluiet assez.

Vostre altesse de vostre grace excusera la faulte de mon language François, ayant esté tant versé es vielles loix de Normandie: mais le cœur supplera la plume, en priant Dieu de vous tenir en sa digne et sainete garde,

Monseigneur,
De vostre altesse le plus humble et plus affectionné serviteur.

Indorsed, May 13, 1619.

* Probably the grant made to him about this time of 1200*l.* a year.

TO THE LORD CHANCELLOR.†

My honourable lord,

His Majesty was pleased, at the suit of some who have near relation unto me, to grant a licence for transportation of butter out of Wales unto one Lewis and Williams; who, in consideration that the patent should be passed in their names, entered into articles for the performance of certain conditions agreed upon between them, which, now that the patent is under the great seal, they utterly refuse to perform. My desire therefore to your lordship is, that you would call the said Lewis and Williams before you, with the other parties, or some of them, who shall be ready at all times to attend your lordship; and out of your consideration of the matter, according to equity to take such course therein, that either the said agreement may be performed, or that they which refuse it may receive no benefit of the patent; which upon reason thereof was passed in their names. And herein I desire your lordship to make what expedition you can; because now is the season to make provision of the butter, that for this year is to be transported, whereof they take advantage to stand out. And so I rest

Your lordship's faithful friend and servant,

G. BUCKINGHAM.

Greenwich, May 14, 1619.

TO THE MARQUIS OF BUCKINGHAM.

My very good lord,

Though it be nothing, and all is but duty; yet I pray show his Majesty the paper enclosed, that his Majesty may see how careful his poor servant is upon every emergent occasion to do him what honour he can. The motion made in court by the king's serjeant, Crew,‡ that the declaration might be made parcel of the record, and that I hear otherwise of the great satisfaction abroad, encourageth me to let his Majesty know what passed.

God ever preserve and prosper you both.

Your lordship's obliged friend and faithful servant,

FR. VERULAM, CANC.

Indorsed, June 29, 1619.

My lord to my lord marquis, enclosing the form of a declaration used in point of acknowledgment in the lady Exeter's § cause.

† Harl. MSS. Vol. 7006.

‡ Sir Randolph Crew, made chief justice of the king's bench, Jan. 26, 1624.

§ Countess of Exeter, accused of incest and other crimes by the lady Lake, wife of secretary Lake, and their daughter the lady Roos.

TO THE MARQUIS OF BUCKINGHAM.

My very good lord,

I purposed to have seen you to-day, and receive your commandments before the progress. But I came not to London till it was late, and found you were gone before I came. Nevertheless, I would not fail to let your lordship understand, that as I find every day more and more occasions, whereby you bind me to you; so this morning the king of himself did tell me some testimony, that your lordship gave of me to his Majesty even now, when you went from him, of so great affection and commendation, for I must ascribe your commendation to affection, being above my merit, as I must do contrary to that that painters do; for they desire to make the picture to the life, and I must endeavour to make the life to the picture, it hath pleased you to make so honourable a description of me. I can be but yours, and desire to better myself, that I may be of more worth to such an owner.

I hope to give the king a good account of my time this vacation.

If your lordship pass back by London, I desire to wait on you, and discourse a little with you: if not, my prayers shall go progress with you, and my letters attend you, as occasion serveth.

God ever preserve and prosper you.

Your lordship's most obliged friend and faithful servant,

FR. VERULAM, CANC.

July 19, 1619.

TO THE MARQUIS OF BUCKINGHAM.

My very good lord,

This day, according to the first appointment, I thought to have waited upon his Majesty, and to have given him an account of my cares and preparations for his service, which is my progress. And therefore, since his coming to Windsor is prolonged, I thought to keep day by letter, praying your lordship to commend my most humble service to his Majesty, and to let him know, that since I see his Majesty doth me the honour, as to rely upon my care and service, I lose no time in that which may pertain thereunto. I see the straits, and I see the way out; and what lieth in one man, whom he hath made great, and trained, shall not be wanting. And I hope, if God give me life for a year or two, to give his Majesty cause to think of me seven years after I am dead.

I am glad the time approacheth, when I shall have the happiness to kiss his Majesty's hands, and to embrace your lordship, ever resting

Your lordship's most obliged friend and faithful servant,

FR. VERULAM, CANC.

York-house, August 28, 1619.

* Bail. MSS. Vol. 7006. † Ibid.

TO THE LORD CHANCELLOR.*

My honourable lord,

His Majesty, upon a petition delivered by Mr. Thomas Digby, wherein he complaineth of great wrongs done unto him, hath been pleased, for his more speedy relief and redress, if it prove as he allegeth, to refer the consideration thereof unto your lordship. And because he is a gentleman, whom I have long known and loved, I could not but add my desire to your lordship, that if you find he hath been wronged, you would do him so much favour, as to give him such remedy, as the equity of his case may require. For which I will ever rest

Your lordship's faithful friend and servant,

G. BUCKINGHAM.

Royston, Octob. 8, 1619.

TO THE LORD CHANCELLOR.†

My honourable lord,

I have acquainted his Majesty with your letter, who hath given order to Mr. Secretary Calvert, to signify his pleasure for the proceeding in that business, whereof you write, without any farther delay, as your lordship will more fully understand by Mr. Secretary, who for that purpose is to return to London against the day of hearing.

I have no answer to make to your former letter, and will add no more to this, but that his Majesty hath a great confidence in your care of his service. And so I rest

Your lordship's faithful friend and servant,

G. BUCKINGHAM.

Royston, Oct. 10, 1619.

Indorsed,

Showing his Majesty's acceptation of your lordship's care, in particular in the business against the earl of Suffolk.

TO THE MARQUIS OF BUCKINGHAM.

My very good lord,

After my last letter yesterday, we entered into conference, touching the Suffolk cause, myself, and the commissioners, and the two chief justices.‡ The fruit of this conference is, that we all conceive the proceedings against my lord himself to be not only just and honourable, but in some principal parts plausible in regard of the public: as namely, those three points, which touch upon the ordnance, the army of Ireland, and the money of the cautionary towns; and the two chief justices are firm in it.

I did also, in this cause, by the assent of my lords, remove a part: for Mr. Attorney had laid it upon

‡ Sir Henry Montagu of the king's bench, and Sir Henry Hobart of the common pleas.

serjeant Davies* to open the information, which is that which gives much life or coldness to the cause. But I will have none but trained men in this cause; and I cannot forget, that the allotting of the opening of the information in this cause of the Dutch, I mean the main cause, to a mean fellow, one Hughes, did hurt, and was never well recovered.

By my next I will write of the king's estate: and I ever rest,

Your lordship's most obliged friend and faithful servant,

FR. VERULAM, CANC.

October 14, 1619.

TO THE MARQUIS OF BUCKINGHAM.

My very good lord,

This morning the duke† came to me, and told me the king's cause was yesterday left fair; and if ever there were a time for my lord of Suffolk's submission, it was now; and that, if my lord of Suffolk should come into the court, and openly acknowledge his delinquency, he thought it was a thing considerable. My answer was, I would not meddle in it; and, if I did, it must be to dissuade any such course; for that all would be but a play upon the stage, if justice went not on in the right course. This I thought it my duty to let the king know by your lordship.

I cannot express the care I have had of this cause in a number of circumstances and discretions, which, though they may seem but small matters, yet they do the business, and guide it right.

God ever keep your lordship.

Your lordship's most obliged friend and faithful servant,

FR. VERULAM, CANC.

October 21, 1619.

TO THE MARQUIS OF BUCKINGHAM.

My very good lord,

I am double bounden to the king, for his Majesty's trust and acceptation; whereof the one I will never deceive; the other, though I cannot deserve, yet I will do my best, and perhaps as much as another man.

This day the evidence went well; for the solicitor‡ did his part substantially: and, a little to warm the business, when the misemployment of treasure, which had relation to the army of Ireland, was handled, I spake a word, that he, that did draw or milk treasure from Ireland, did not *emulgere*, milk money, but blood. But this is but one of the little things, that I wrote of before.

The king, under pardon, must come hither with two resolutions: the one, to remit all importunity, touching this cause, to the lords in court of justice; the other, to pursue the designs first taken at Windsor, and then at Hampton-Court, for his commission of treasury: wherein I do my part, and it is reasonably well: but better would it be, if instruments were not impediments. I ever rest

Your lordship's most obliged friend and faithful servant,

FR. VERULAM, CANC.

October 27, Wednesday.

Friday will not end the business; for to-morrow will but go through with the king's evidence.

TO THE LORD CHANCELLOR.§

My honourable lord,

This bearer, a Frenchman belonging to the ambassador, having put an Englishman in suit for some matters between them, is much hindered and molested by often removing of the cause from one court to another. Your lordship knows, that the French are not acquainted with our manner of proceedings in the law, and must therefore be ignorant of the remedy in such a case. His course was to his Majesty; but I thought it more proper, that your lordship would be pleased to hear and understand this case from himself, and then to advise and take order for his relief, as your lordship in your wisdom shall think fit. So commending him to your honourable favour, I rest

Your lordship's faithful friend and servant,

G. BUCKINGHAM.

Royston, 27th of October, 1619.

Your lordship shall do well to be informed of every particular, because his Majesty will have account of it at his coming.

TO THE LORD CHANCELLOR.‖

My honourable lord,

I have acquainted his Majesty with your letter, who commanded me to give your lordship thanks for your speed in advertising those things that pass, and for the great care he seeth you ever have of his service.

I send your lordship back the bill of sheriffs for Sussex, wherein his Majesty hath pricked the first, as your lordship wished.

His Majesty would not have you omit this opportunity of so gross an oversight in the judges, to admonish them of their negligence in suffering such a thing to come to his Majesty, which needed his amending afterward: and withal, to let them know,

* Sir John Davies, author of *Nosce teipsum*, knighted in February, 1607-8, and made serjeant at law in 1612. He had been attorney-general of Ireland.

† Lodowick, duke of Lenox. He was created duke of Richmond, May 17, 1623; and died February 11, 1623-4.

‡ Sir Thomas Coventry, afterwards lord keeper of the great seal.

§ Harl. MSS. Vol. 7006.

‖ Ibid.

that his Majesty observeth, that every year they grow more and more careless of presenting fit men unto him for that place; and that you advise them to be more wary hereafter, that they may give his Majesty better satisfaction. And so I rest

Your lordship's faithful friend and servant,

G. BUCKINGHAM.

Royston, November 14, 1619.

TO THE MARQUIS OF BUCKINGHAM.

My very good Lord,

This day afternoon, upon our meeting in council, we have planed those rubs and knots, which were mentioned in my last, whereof I thought good presently to advertise his Majesty. The days hold without all question, and all delays diverted and quieted.

Sir Edward Coke was at Friday's hearing, but in his night-cap; and complained to me, he was ambulant, and not current. I would be sorry he should fail us in this cause. Therefore I desired his Majesty to signify to him by your lordship, taking knowledge of some light indisposition of his, how much he should think his service disadvantaged in this cause, if he should be at any day away; for then he cannot sentence.

By my next I will give his Majesty some account of the tobacco and the currants. I ever rest

Your lordship's most obliged friend and faithful servant,

FR. VERULAM, CANC.

November 20, at evening, 1619.

TO THE MARQUIS OF BUCKINGHAM.

My very good Lord,

I know well his Majesty taketh to heart this business of the Dutch,* as he hath great reason, in respect both of honour and profit. And because my first letter was written in the epitasis, or trouble of the business; and my second in the beginning of the catastrophe, or calming thereof, wherein nevertheless I was fain to bear up strongly into the weather before the calm followed; and since every day hath been better and better, I thought good to signify so much, that his Majesty may be less in suspense.

The great labour was to get entrance into the business; but now the portcullis is drawn up. And though, I must say, there were some blots in the tables, yet, by well playing, the game is good.

Rowland is passing well justified; for both his credit is, by very constant and weighty testimony, proved; and those vast quantities, which were thought incredible, or at least improbable, are now made manifest truth.

Yet I find a little of the old leaven towards the first defendants, carried in this style and character; "I would this, that appears now, had appeared at first. But this cometh of haste and precipitation;" and the like. But yet I hope, the corruption and practice upon the *ore tenus* and the rectifying of Rowland's credit, will satisfy my lords upon the former proofs. For I would be very sorry, that these new defendants, which, except one or two, are the smaller flies, should be in the net; and the old defendants, which are the greater flies, should get through. God preserve you.

Your lordship's most obliged friend and faithful servant,

FR. VERULAM, CANC.

This November 26, 1619.

Indorsed,

Touching the Dutch business.

* Merchants, accused in the star-chamber for exporting the gold and silver coin.

TO THE LORD CHANCELLOR.†

My honourable Lord,

I do, from time to time, acquaint his Majesty with your letters, wherein he ever perceiveth your vigilant care in any thing that concerneth his service; and hath commanded me to give you thanks in his name, who is sure your endeavours will never be wanting, when any thing is to be done for the advancement of his affairs.

According to your lordship's advice, his Majesty hath written to the commissioners of the treasury, both touching the currants and the tobacco,‡ the plantation whereof his Majesty is fully resolved to restrain; and hath given them order forthwith to set out a proclamation to that effect; not intending in that point to stand upon any doubt of law, nor to expect the judges' interpretation; nor to allow any freehold in that case; but holding this the safest rule. "Salus reipublicæ suprema lex esto." And so I rest

Your lordship's faithful friend and servant,

G. BUCKINGHAM.

Newmarket, Nov. 27, 1619.

† Harl. MSS. Vol. 7006.

‡ Lord Bacon, in his letter of November 22, 1619, mentions, that there was offered 2000*l.* increase yearly for the tobacco, to begin at Michaelmas, as it now is, and 3000*l.* increase, if the plantations here within land be restrained.

TO THE LORD CHANCELLOR.§

My honourable Lord,

I have presented both the submissions to his Majesty. His answer is, he cannot alter that, which was allowed of by the lords of the last star-chamber day, except first they be acquainted with it, and the consent of the lady Exeter be likewise had, because the decree doth necessarily require it. So I rest

Your lordship's humble servant

G. BUCKINGHAM.

Indorsed,

Touching the submissions of Sir Thomas Lake and his lady.

§ Harl. MSS. Vol. 7006.

TO THE MARQUIS OF BUCKINGHAM.

MY VERY GOOD LORD,

I ACQUAINTED this day the bearer with his Majesty's pleasure touching Lake's * submission; which whether it should be done in person, or in writing, his Majesty signified his will thus, that it should be spared in open court, if my lady of Exeter should consent, and the board think fit. The board liked it well, and appointed my lord Digby and secretary Calvert to speak with my lady, who returned her answer in substance, that she would, in this and all things, be commanded by his Majesty: but if his Majesty left it to her liberty and election, she humbly prayed to be excused. And though it was told her, that this answer would be cause, that it could not be performed this term; yet she seemed willing rather it should be delayed, than dispensed with.

This day also Traske,† in open court, made a retractation of his wicked opinions in writing. The form was as good as may be. I declared to him, that this court was the judgment-seat; the mercy-seat was his Majesty: but the court would commend him to his Majesty: and I humbly pray his Majesty to signify his pleasure speedily, because of the misery of the man; and it is a rare thing for a secretary, that hath once suffered smart and shame, to turn so unfeignedly, as he seemed to do.

God ever bless and keep you.

Your most obliged friend and faithful servant,
FR. VERULAM, CANC.

December 1, 1619.

TO THE MARQUIS OF BUCKINGHAM.

MY VERY GOOD LORD,

ON Friday I left London, to hide myself at Kew; for two months and a half together to be strong-bent is too much for my bow. And yet, that the king may perceive that in my times of leisure I am not idle, I took down with me Sir Giles Mompesson,‡ and with him I have quietly conferred of that proposition which was given me in charge by his Majesty, and after seconded by your lordship. Wherein I find some things I like very well, and some other that I would set by. And one thing is much to my liking, that the proposition for bringing in his Majesty's revenue with small charge is no invention, but was on foot heretofore in king Philip's and queen Mary's time, and had a grave and mighty opinion for it. The rest I leave to his relation, and mine own attendance.

I hope his Majesty will look to it, that the fines now to come in may do him most good. Both causes produce fines of one hundred and fourscore thousand pounds, whereof one hundred thousand may clear the anticipations, and then the assignations may pass under the great seal, to be enrollable; so as we shall need to think of nothing but the arrears in a manner, of which I wish the 20,000*l.* to the strangers, with the interest, be presently satisfied. The remain may serve for the king's present and urgent occasions. And if the king intend any gifts, let them stay for the second course, for all is not yet done, but nothing out of these, except the king should give me the 20,000*l.* I owe Peter Vanlore out of his fine, which is the chief debt I owe. But this I speak merrily. I ever rest

Your lordship's most obliged friend and faithful servant,
FR. VERULAM, CANC.

Kew, December 12, 1619.

After I had written this letter, I received from your lordship, by my servant, his Majesty's acceptation of my poor services; for which I pray your lordship to present to his Majesty my most humble thanks. I have now other things in my mind for his Majesty's service, that no time be lost.

TO THE LORD CHANCELLOR.§

MY HONOURABLE LORD,

HIS Majesty hath been pleased, out of his gracious care of Sir Robert Killigrew, to refer a suit of his, for certain concealed lands, to your lordship and the rest of the commissioners for the treasury; the like whereof hath been heretofore granted to many others. My desire to your lordship is, that he being a gentleman, whom I love and wish very well unto, your lordship would show him, for my sake, all the favour you can, in farthering his suit. Wherein your lordship shall do me a courtesy, for which I will ever rest

Your lordship's faithful friend and servant,
G. BUCKINGHAM.

Royston, December 25, 1619.

* Sir Thomas Lake's.

† John Traske, a minister, who was prosecuted in the star-chamber for maintaining, as we find mentioned in the Reports of the lord chief justice Hobart, p. 236, that the Jewish Sabbath ought to be observed, and not ours; and that we ought to abstain from all manner of swine's flesh, and those meats which the Jews were forbidden in Leviticus, according to bishop Andrews, in his speech, in the star-chamber on that occasion, printed among his lordship's works. Mr. Traske being examined in that court, confessed, that he had divulged those opinions, and had laboured to bring as many to them as he could; and had also written a letter to the king, wherein he seemed to tax his Majesty with hypocrisy, and expressly inveighed against the bishops high commissioners, as bloody and cruel in their proceedings against him, and a papal clergy. He was sentenced to fine and imprisonment, not for holding those opinions, for those were examinable in the ecclesiastical court, and not there, but for making of conventicles and commotions, and for scandalizing the king, the bishops, and clergy. Dr. Fuller, in his Church History of Britain, Book X. p. 77. § 64, mentions his having heard Mr. Traske preach, and remarks, that his *voice had more strength than any thing else he delivered;* and that after his recantation he relapsed, not into the same, but other opinions, *rather humorous than hurtful*, and died obscurely at Lambeth in the reign of king Charles I.

‡ Who in the parliament, which began January 30, 1620-1, was sentenced to be degraded and rendered incapable of bearing any office, for practising several abuses, in setting up new inns and alehouses, and exacting great sums of money of the people, by pretence of letters patents granted him for that purpose. But he fled into foreign parts, finding himself abandoned by the marquis of Buckingham, on whom he had depended for protection.

§ Harl. MSS. Vol. 7006.

TO THE LORD CHANCELLOR.*

My honourable lord,

I have acquainted his Majesty with your letter, who for that business, whereof Mr. Chancellor of the Exchequer brought the message to his Majesty to Theobald's, returned the answer by him.

As for that, whereof Sir Giles Mompesson spake to your lordship, his Majesty liketh very well, and so do all others, with whom his Majesty hath spoken of it; and therefore he recommendeth it to your care, not doubting but your lordship will give all your furtherance to it, being your own work, and so much concerning his Majesty's honour and profit; and will speak farther with your lordship of it at his return to London.

For those other businesses of the star-chamber, which his Majesty hath recommended to your lordship, he hopeth you will keep the clock still going, his profit being so much interested therein, especially seeing Mr. Chancellor of the Exchequer † hath promised his Majesty, that he will be no more sick, whereby you shall have this comfort, that the burden will not lie upon your lordship alone.

The little leisure I had at Theobald's made me bring your man down hither for this answer, which I hope your lordship will excuse; and ever hold me for

Your lordship's faithful friend and servant,

G. BUCKINGHAM.

Royston, Jan. 19.

Indorsed, 1619.

TO THE MARQUIS OF BUCKINGHAM.

My very good lord,

In the midst of business, as in the midst of a way, one should not stay long, especially when I crave no direction, but only advertise.

This day we met about the commission, the commonwealth's commission, for the poor and vagabonds, &c. We have put it into an exceeding good way, and have appointed meetings once in fourteen days, because it shall not be a-slack. I was glad to hear from the two chief justices, that whatsoever appears in the country to come from *primum mobile*, that is, the king's care, works better than if it came from the law. Therefore we have ordered, that this commission shall be published in the several circuits in the charges of the judges. For the rest hereafter.

For the proposition of Sir Giles Mompesson, we have met once. Exchequer-men will be exchequer-men still; but we shall do good.

For the account, or rather imparting, of the commissioners of treasury to the council, I think it will but end in a compliment. But the real care, and I hope good purpose, I will not give over, the better because I am not alone.

For the star-chamber business, I shall, as you write, keep the clock on going, which is hard to do, when sometimes the wheels are too many, and sometimes too few. But we shall do well, especially if those, whom the king hath hitherto made bond-men, (I mean, which have given bonds for their fines,) he do not hereafter make free-men.

For Suffolk's business it is a little strange, that the attorney made it a question to the commissioners of treasury, whether Suffolk should not be admitted to the lease of the extent of his own land, which is the way to encourage him not to pay his fine. But when it was told him that the contrary course was held with the earl of Northumberland, and that thereby he was brought to agree for his fine; then he turned, as his manner is.

For the errors, we have yet so much use of the service of Sir Henry Britten in bringing in the fines, indeed more than of the attorney, as we cannot, without prejudice to his Majesty's service, enter yet into them; and besides, Sir Edward Coke comes not abroad.

Mr. Kirkham hath communicated with me, as matter of profit to his Majesty, upon the coals referred by his Majesty to us of the treasury, wherein I hope we shall do good, the rather, because I am not alone.

The proclamation for light gold, Mr. Secretary Calvert, I know, hath sent to his Majesty; and therefore of that I say no more.

For the raising of silver by ordinance, and not by proclamation, and that for the time to come, we have given order to finish it. I hear a whispering, that thereupon the commissioners of the navy, the officers of the household, the wardrobe, may take occasion to break the book and the undertakings, because the prices may rise, which I thought good to signify to his Majesty. And to speak plainly, I fear more the pretence, than the natural effect. God evermore preserve your lordship. I rest

Your lordship's most obliged friend and faithful servant,

FR. VERULAM, CANC.

January 20, 1619.

TO THE LORD CHANCELLOR.‡

My honourable lord,

I have acquainted his Majesty with your letter, who is very well pleased therewith, finding in you a continual care of his service. In that point of the star-chamber business, his Majesty saith, there is a mistaking; for he meant not the Dutchmen's business, but that motion, which your lordship made unto him, of sitting in the star-chamber about the commissions, which he had not leisure to read till he came down to Royston, and hath reason to give you thanks for it, desiring you to prepare it, and study the point, of which he will speak more with

* *Harl. MSS.* Vol. 7006.

† *Sir Fulke Greville*, who surrendered that office in September, *1621*, being succeeded in it by Sir Richard Weston. He had been created lord Brooke of Beauchamp's Court, Jan. 9, 1621.

‡ Harl. MSS. Vol. 7006.

you at his return to London, being a matter worthy your thinking on, and his Majesty's practice.

For the last point of your letter, his Majesty saith, it cannot but proceed of malice, that there should be any such plot, which he will not endure, but he will account those, that whisper of it in that sort, enemies of his service; and will put them out of their places, that practise it. And so I rest

Your lordship's faithful friend and servant,

G. BUCKINGHAM.

Newmarket, Jan. 22, 1619.

TO MR. SECRETARY CALVERT.*

Mr. Secretary,

I have received your letter of the 3d of this present, signifying his Majesty's pleasure touching Peacock's † examinations, of which I will have special care.

My lord Coke is come to town, and hath sent me word, he will be with me on Monday, though he be somewhat lame. Howsoever, the service shall be done.

I was made acquainted, by your letter to secretary Naunton, with his Majesty's dislike of the sending to him of the jolly letter from Zealand. I will now speak for myself, that, when it was received, I turned to the master of the wards,‡ and said, "Well, I think you and I shall ever advise the king to do more for a Burlamachi, when he seeketh to his Majesty by supplication and supplying the king at the first word, than for all the rest upon any bravadoes from the burgomasters of Holland and Zealand;" who answered very honestly, that it was in the king's power to make them alter their style when he would. But when another of us said, we could not but in our own discharge send the king the letter, *scilicet negandum non fuit;* though indeed my way is otherwise.

I have at last recovered from these companions, Harrison and Dale, a copy of my lord of Bangor's § book, the great one, and will presently set in hand the examinations. God keep you.

Your assured Friend,

FR. VERULAM, CANC.

February 5, 1619.

TO THE KING.

May it please your Majesty,

Sir Edward Coke is now a-foot, and, according to your command, signified by Mr. Secretary Calvert, we proceed in Peacock's examinations. For although there had been very good diligence used, yet certainly we are not at the bottom; and he, that would not use the utmost of his line to sound such a business as this, should not have due regard, neither to your Majesty's honour nor safety.

A man would think he were in Luke Hutton's case again; for as my lady Roos personated Luke Hutton, so, it seemeth, Peacock personateth Atkins. But I make no judgment yet, but will go on with all diligence: and, if it may not be done otherwise, it is fit Peacock be put to torture. He deserveth it as well as Peacham did.

I beseech your Majesty not to think I am more bitter, because my name is in it; for, besides that I always make my particular a cypher, when there is question of your Majesty's honour and service, I think myself honoured for being brought into so good company. And as, without flattery, I think your Majesty the best of kings, and my noble lord of Buckingham the best of persons favoured; so I hope, without presumption, for my honest and true intentions to state and justice, and my love to my master, I am not the worst of chancellors.

God ever preserve your Majesty.

Your Majesty's most obliged and most obedient servant,

FR. VERULAM, CANC.

Feb. 10, 1619.

TO THE LORD CHANCELLOR.

Most honoured Lord,

I presume, now after term, if there be any such thing as an after-term with your lordship, to offer this enclosed paper‖ to your sight, concerning the duke of Lerma; which, if your lordship have not already read, will not, I think, be altogether unpleasing, because it is full of particular circumstances. I know not how commonly it passeth up and down more or less. My friend, Mr. Gage, sent it me lately out of Spain. But howsoever I build upon a sure ground; for though it should be vulgar, yet, for my desire to serve your lordship, I cannot demerit so much, as not to deserve a pardon at your lordship's most noble hand.

Before the departure of the duke of Lerma from that court, there was written upon the gate for a pasquinade, that the house was governed "por el Padre, y el Hijo, y un Santo;" as in Paris about the same time was written upon the Louvre-Gate, "C'est icy l'hostel des troys Roys;" for Luynes's brother is almost as great as himself. But the while there is good store of kings now in christendom, though there be one fewer than there was.

* Harl. MSS. Vol. 7006.

† He was a minister of the University of Cambridge. He was committed to the Tower, for pretending that he had, by sorcery, infatuated the king's judgment in the cause of Sir Thomas Lake. Camd. Annal. Regis Jacobi I. p. 54.

‡ Sir Lionel Cranfield.

§ Dr. Lewis Bayly, born at Caermarthen, in Wales, and educated in Exeter College, Oxford. He had been minister of Evesham, in Worcestershire, and chaplain to prince Henry, and rector of St Matthew's, Friday-street, in London. He was promoted to the bishopric of Bangor in 1616. On the 15th of July, 1621, he was committed to the Fleet, but on what account is not related by Camden, Annales Regis Jacobi I. p. 72, who mentions the circumstance of the bishop's imprisonment, but that he was soon after set at liberty. He was the author of the well-known book, *the Practice of Piety.*

‖ I have, out of a ragged hand in Spanish, translated it, and accompanied it with some marginal notes, for your lordship's greater ease. Note of Mr. Matthew.

In Spain there are very extraordinary preparations for a great armada. Here is lately in this court a current speech, as that the enterprise, whatsoever it should have been, is laid wholly aside: but that were strange. Yet this is certain, that the forces of men, to the number of almost two thousand, which were to have gone into Spain from hence, are discharged, together with some munition, which was also upon the point of being sent. Another thing is also certain, that both in the court of Spain and this, there is at this time a strange straitness of money; which I do not conceive, for my part, to proceed so much from want, as design to employ it. The rendezvous, where the forces were to meet, was at Malaga within the straits; which makes the enterprise upon Algiers most likely to be intended. For I take that to be a wild conceit, which thinks of going by the Adriatic *per far in un viaggio duoi servitii*; as the giving a blow to Venice, and the landing of forces in aid of the king of Bohemia about Trieste.

Perhaps the king of Spain would be glad to let the world see, that now he is *hors de paye*; and by showing himself in some action, to entitle the duke of Lerma to all his former sloth; or perhaps he now makes a great preparation, upon the pretenee of some enterprise, that he will let fall, that so he may with the less noise assemble great forees some other year, for some other attempt not spoken of now.

My lord Compton * is in this court, and goes shortly towards Italy. His fashion is sweet, and his disposition noble, and his conversation fair and honest.

Diego, my lord Roos's man, is come hither. I pray God it be to do me any good towards the recovery of the debt his lord owes me.

Most honoured lord, I am here at good leisure to look back upon your lordship's great and noble goodness towards me, which may go for a great example in this age; and so it doth. That which I am sure of, is, that my poor heart, such as it is, doth not only beat, but even boil in the desires it hath to do your lordship all humble service.

I crave leave, though it be against good manners, that I may ever present my humblest service to my most honoured lady, my lady Verulam, and lady Constable, with my best respects to my dear friend, Sir John Constable; who, if your lordship want the leisure, would perhaps cast an eye upon the enclosed paper.

I do, with more confidence, presume to address this other letter to Mr. Meautys, because the contents thereof concern your lordship's service.

I beseech sweet Jesus to make and keep your lordship entirely happy. So I humbly do you reverence, remaining ever

Your lordship's most obliged servant,

TOBIE MATTHEW.

Post. I should be glad to receive some of your lordship's philosophical labours, if your lordship could so think fit. I do now receive a letter from the Conde de Gondomar, who, thinking that it should find me in England, saith thus: "Beso las manos mil vezes a mi sennor, el sennor Gran Chaneilor, con my coracon; como estoy en su buena gracia." The empress is dead long since, and the emperor is so sickly, or rather so sick, that they forbear to bury her with solemnity, as conceiving, that he will save charge by dying shortly. They say here, that the business of Bohemia is growing towards an end by composition.

Brussels, this 14th of Feb. 1619.

TO THE MARQUIS OF BUCKINGHAM.

My very good lord,

For the services committed to Sir Lionel Cranfield, after his Majesty hath spoken with him, I shall attend and follow his Majesty's pleasure and directions, and yield my best eare, adviee, and endeavour for performanee.

In the pretermitted duty I have some profit, and more was to have had if queen Anne had lived. Wherefore I shall become an humble suitor to his Majesty, that I may become no loser, specially seeing the business had been many a time and oft quite overthrown, if it had not been upheld only, or chiefly, by myself; so that whatsoever service hath been since done, is upon my foundation.

Mr. Attorney † groweth pretty pert with me of late; and I see well who they are that maintain him. But be they flies, or be they wasps, I neither care for buzzies nor stings, more especially in any thing that concerneth my duty to his Majesty, or my love to your lordship.

I forgot not, in my publie eharge, the last star-chamber day, to publish his Majesty's honour for his late commission for the relief of the poor, and suppressing vagabonds; as also his gracious intention touching informers, which, I perceive, was received with much applause. That of projectors I spake not of, beeause it is not yet ripe, neither doth it concern the exeeution of any law, for which my speech was proper. God ever preserve and prosper you.

Your lordship's most obliged friend and faithful servant,

FR. VERULAM, CANC.

February 17, 1619.

TO THE MARQUIS OF BUCKINGHAM.

My very good lord,

I send, by post, this sealed packet, containing my lord of Suffolk's answer in the star-chamber. I received it this evening at six of the elock, by the hands of the master of the rolls,‡ sealed as it is with my lord of Suffolk's seal, and the master's of

* Spencer, lord Compton, only son of William, earl of Northampton. This nobleman, who succeeded his father in his title and estate, in June 1630, was killed at Hopton-Heath, near Stafford, on Sunday, March 19, 1642-3, fighting for king Charles I.

† Sir Henry Yelverton. ‡ Sir Julius Cæsar.

the rolls. But neither I, nor the master of the rolls, know what is in it; but it cometh first to his Majesty's sight. Only I did direct, that because the authentic copy, unto which my lord is sworn, according to the course of the court, is not so fit for his Majesty's reading, my lord of Suffolk should send withal a paper copy, which his Majesty might read with less trouble.

My lady Suffolk is so ill of the small-pox, as she is not yet fit to make any answer.

Bingley's* answer is come in, a long one; and, as I perceive, with some things impertinent, yea, and unfit. Of that I confer with Mr. Solicitor † tomorrow; and then I will farther advertise your lordship.

God ever preserve and prosper you.

Your lordship's most obliged friend and faithful servant,

FR. VERULAM, CANC.

York-house, this 23d of Feb. 1619,
at nine of the clock [1619-20.]

TO THE LORD CHANCELLOR.

MOST HONOURED LORD,

I DO even now receive this letter from the Conde de Gondomar, with direction I should send it, since I am not there to deliver it, to Mr. Wyche, that so he may present it to your lordship's hand at such time, as it may be of most use to him. He commands me besides, that for his sake I should become an humble solicitor to your lordship for this friend of his; which I presume to do the more willingly, because this party is a great friend of mine, and so are also many of his frieads my friends. Besides he wills me to represent his great thanks to your lordship, for the just favours you have been pleased to vouchsafe to Mr. Wyche already, the rather in contemplation of the Conde, as he bath been informed. And if in tbe company, or rather in the attendance of so great an intereessor, it be not an unpardonable kind of ill manners to intrude myself, I presume to cast myself at your lordship's feet, with protestation, that I shall be very particularly bound to your lordship's goodness for any favoar, with justice, that he shall obtain.

I beseech Jesus keep your lordship ever entirely happy; and so doing all humble reverence, I take leave.

Your lordship's most humble and most obliged servant,

TOBIE MATTHEW.

Brussels, this 26th of Feb. 1619.

TO THE LORD CHANCELLOR.‡

MY HONOURABLE LORD,

UNDERSTANDING that there hath been a long and tedious suit depending in the chancery between Robert D'Oyley and his wife, plaintiffs, and Leonard Lovace, defendant; which cause hath been heretofure ended by award, but is now revived again, and was, in Michaelmas term last, fully heard before your lordship; at which hearing your lordship did not give your opinion thereof, but were pleased to defer it, until breviats were delivered on both sides; which, as I am informed, hath been done accordingly: now my desire unto your lordship is, that you will be pleased to take some time, as speedily as your lordship may, to give your opinion thereof, and so make a final end, as your lordship shall find the same in equity to deserve. For which I will ever rest

Your lordship's faithful friend and servant,

G. BUCKINGHAM.

Windsor, May 18, 1620.

TO THE MARQUIS OF BUCKINGHAM.

MY VERY GOOD LORD,

I WENT to Kew for pleasure, but I met with pain. But neither pleasure nor pain can withdraw my mind from thinking of his Majesty's service. And because his Majesty shall see how I was occupied at Kew, I send him these papers of rules for the star-chamber, wherein his Majesty shall erect one of the noblest and darablest pillars for the justice of his kingdom in perpetuity, that can be, after, by his own wisdom, and the advice of his lords, he shall have revised them, and established them. The manner and circumstances I refer to my attending his Majesty. The rules are not all set down; but I will do the rest within two or three days. I ever remain

Your lordship's most obliged friend and faithful servant,

FR. VERULAM, CANC.

June 9, 1620.

TO THE LORD CHANCELLOR §

MY VERY GOOD LORD,

SUCH is my haste at this time, that I cannot write so largely to yourself, as I would, in the business of the steel, in which once already I sent to your lordship, and in which I only desire the good of the commonwealth, and the service of my master. I therefore have sent this bearer, my servant, unto you, and committed the relation of the business to him. And I do entreat your lordship to give credit to what he shall deliver your lordship therein, with your lawful assistance of my desires; wherein I doubt not but you shall do a very good office. And I shall rest ready to requite your courtesy; and, with my best wishes, continue

Your very loving friend,

G. BUCKINGHAM.

Egham, July 6, 1620.

Indorsed,

My Lord Marquis in the behalf of his servant, Mr. Porter, and Mr. Dallington.

* Sir John Bingley's. † Sir Thomas Coventry. ‡ Harl. MSS. Vol. 7006. § Ibid.

TO THE LORD CHANCELLOR.*

My honourable lord,

His Majesty having made a reference of business to your lordship, concerning Sir Robert Douglas and Mr. David Ramsay, two of his highness's servants, whom he loveth, and whom I wish very well unto; I have thonght fit to desire you to show them all the favour your lordship may therein: which I will acknowledge, and ever rest

Your lordship's faithful friend and servant,

G. BUCKINGHAM.

Farnham, the last of August, 1620.

The reference comes in the name of my brother Christopher, because they thought it would sncceed the better: but the prince wisheth well to it.

Indorsed,

Touching the business of wills.

TO THE KING.†

Amongst the counsels, which, since the time I had the honour to be first of your learned, and after of your privy council, I have given your Majesty faithfully, according to my small ability: I do take comfort in none more, than that I was the first, that advised you to come in person into the star-chamber; knowing very well, that those virtues of your Majesty, which I saw near hand, would ont of that throne, both, as out of a sphere, illustrate your own honour, and, as out of a fountain, water and refresh your whole land. And becanse your Majesty, in that you have already done, hath so well effected that, which I foresaw and desired, even beyond my expectation; it is no marvel, if I resort still to the branches of that counsel, that hath borne so good fruit.

The star-chamber, in the institution thereof, hath two nses; the one as a supreme court of judicature; the other as an open council. In the first kind, your Majesty hath sat there now twice; the first time, in a cause of force, concerning the dnels; the second time, in a cause of fraud, concerning the forgeries and conspiracies against the lady of Exeter; which two natures of crimes, force and fraud, are the proper objects of that eonrt.

In the second kind, your Majesty came the first time of all, when you did set in frame and fabric the several jnrisdictions of your courts. There wants a fourth part of the square to make all eomplete, which is, if your Majesty will be pleased to publish certain commonwealth commissions; which, as your Majesty hath well begun to do in some things, and to speak of in some others; so, if your Majesty will be pleased to make a solemn declaration of them in that place, this will follow:

First, that your Majesty shall do yourself an infinite honour, and win the hearts of your people to acknowledge you, as well the most politic king, as the most just.

Secondly, it will oblige yonr commissioners to a more strict account, when they shall be engaged by such a public charge and commandment. And, thirdly, it will invite and direct any man, that finds himself to know any thing concerning those commissions, to bring in their informations. So as I am persuaded it will eternize your name and merit, and tbat king James's commissions will be spoken of, and put in nre, as long as Britain lasts; at the least, in the reign of all good kings.

For the particulars, besides the two commissions of the navy, and the buildings abont London, wherein your Majesty may consider, whether you will have any thing altered or supplied, I wish these following to be added.

Commission for advancing the clothing of England, as well the old drapery as the new, and all the incidents thercunto.

Commission for staying treasnre within the realm, and the reiglement of moneys.

Commission for the provision of the realm with corn and grain, and the government of the exportation and importation thereof; and directing of public granaries, if canse be.

Commission for introducing and nourishing manufactures within the realm, for the setting people a-work, and the considering of all grants and privileges of that nature.

Commission to prevent the depopulation of towns and houses of husbandry, and for nuisances and highways.

Commission for the recovery of drowned lands.

Commission for the suppression of the grievances of informers.

Commission for the better proceedings in the plantations of Ireland.

Commission for the provision of the realm with all kind of warlike defence, ordnance, powder, mnnition, and armour.

Of these you may take and leave, as it shall please yon: and I wish the articles concerning every one of them, first allowed by your council, to be read openly, and the commissioners' names.

For the good, that comes of particular and select committees and commissions, I need not commonplace, for your Majesty hath found the good of them: bnt nothing to that that will be, when such things are published; because it will vindicate them from neglect, and make many good spirits, that we little think of, co-operate in them.

I know very well, that the world, that commonly is apt to think, that the care of the commonwealth is but a pretext in matters of state, will perhaps conceive, that this is but a preparative to a parliament. Bnt let not that hinder your Majesty's magnanimity, *in opere operato*, that is so good; and besides, that opinion, for many respects, will do no hnrt to your affairs.

* Harl. MSS. Vol. 7006.

† This letter appears to have been written after the proceedings against Sir Thomas Lake, and his lady and daughter, in the star-chamber, in January 1619-20, and before the resolutinn of calling the parliament which met January 30, 1620-1.

TO THE LORD CHANCELLOR.*

My very good lord,

By his Majesty's directions Sir Francis Blundell will deliver you a petition of Sir Francis Annesley, his Majesty's secretary of Ireland, with his Majesty's pleasure thereupon. To the gentleman I wish very well, and do therefore recommend him and his cause to your lordship's good favour; and your respect of him, in his absence, I will thankfully acknowledge. So I take my leave.

Your lordship's very loving friend,

G. BUCKINGHAM.

Theobald's, the 2d of Oct. 1620.

TO THE KING.

It may please your most excellent majesty,

It being a thing to speak or write, specially to a king, in public, another in private, although I have dedicated a work,† or rather a portion of a work, which, at last, I have overcome, to your Majesty by a public epistle, where I speak to you in the hearing of others; yet I thought fit also humbly to seek access for the same, not so much to your person as to your judgment, by these private lines.

The work, in what colours soever it may be set forth, is no more but a new logic, teaching to invent and judge by induction, as finding syllogism incompetent for sciences of nature; and thereby to make philosophy and sciences both more true and more active.

This tending to enlarge the bounds of reason, and to endow man's estate with new value, was no improper oblation to your Majesty, who, of men, is the greatest master of reason, and author of beneficence.

There be two of your council, and one other bishop‡ of this land, that know I have been about some such work near thirty years;§ so as I made no haste. And the reason why I have published it now, specially being unperfect, is, to speak plainly, because I number my days, and would have it saved. There is another reason of my so doing, which is to try whether I can get help in one intended part of this work, namely, the compiling of a natural and experimental history, which must be the main foundation of a true and active philosophy.

This work is but a new body of clay, whereinto your Majesty, by your countenance and protection, may breathe life. And, to tell your Majesty, truly what I think, I account your favour may be to this work as much as a hundred years time: for I am persuaded the work will gain upon men's minds in ages, but your gracing it may make it take hold more swiftly; which I would be very glad of, it being a work meant not for praise or glory, but for practice, and the good of men. One thing, I confess, I am ambitious of, with hope, which is, that after these beginnings, and the wheel once set on going, men shall seek more truth out of christian pens, than hitherto they have done out of heathen. I say with hope; because I hear my former book of the "Advancement of Learning," is well tasted in the universities here, and the English colleges abroad: and this is the same argument sunk deeper.

And so I ever humbly rest in prayers, and all other duties,

Your Majesty's most bounden and devoted servant,

FR. VERULAM, CANC.

York-house, this 12th of Oct. 1620.

TO THE LORD CHANCELLOR.‖

My honourable lord,

There is a business in your lordship's hands, with which Sir Robert Lloyd did acquaint your lordship; whereof the prince hath demanded of me what account is given. And because I cannot inform his highness of any proceeding therein, I desire your lordship to use all expedition that may be, in making your answer to me, that I may give his highness some satisfaction, who is very desirous thereof. And so I rest

Your lordship's faithful friend and servant,

G. BUCKINGHAM.

Royston, 14th of October, 1620.

Indorsed,

Touching the register of wills.

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* Harl. MSS. Vol. 7006.

† *Novum Organum.* In the library of the late Thomas, earl of Leicester, the descendant of Sir Edward Coke, at Holkham in Norfolk, is a copy of this work, entitled *Instauratio Magna*, printed by John Bill, in 1620, presented to Sir Edward, who at the top of the title-page has written, *Edw. C. ex dono auctoris.*

"Auctori Consilium.
Instaurare paras veterum documenta sophorum:
Instaura Leges Justitiamq; prius."

And over the device of the ship passing between Hercules's Pillars, Sir Edward has written the two following verses:

"It deserveth not to be read in Schooles,
But to be freighted in the *Ship of Fools.*"

Alluding to a famous book of Sebastian Brand, born at Strasburgh, about 1460, written in Latin and High Dutch verse, and translated into English in 1508, by Alexander Barklay, and printed at London the year following, by Richard Pynson, printer to Henry VII. and Henry VIII. in folio, with the following title: "The Shyp of Folys of the world: Translated in the Coll. of Saynt Mary Otery, in the counte of Devonshyre, ont of Latin, Frenche, and Doche, into Englesshe tongue, by Alex. Barklay, preste and chaplen in the said College, M,CCCCC,VIII." It was dedicated by the translator to Thomas Cornish, bishop of Tine, and suffragan bishop of Wells, and adorned with great variety of wooden cuts.

‡ Dr. Lancelot Andrews, bishop of Winchester.

§ Mr. Chamberlain, in a letter to Sir Dudley Carleton, ambassador at Holland, dated at London, October 28, 1620, mentions, that Mr. Henry Cuffe, who had been secretary to Robert, earl of Essex, and executed for being concerned in his treasons, *having long since perused* this work, *gave this censure, that a fool could not have written such a work, and a wise man would not.* And, in another letter, dated Feb. 3, 1620-1, Mr. Chamberlain takes notice, that the king could not forbear sometimes, in reading that book, to say, *that it was like the peace of God, that passeth all understanding.*

‖ Harl. MSS. Vol. 7000.

TO THE LORD CHANCELLOR.*

My honourable lord,

I desire your lordship to continue your favour to Sir Thomas Gerrard, in the business concerning him, wherein I signified his Majesty's pleasure to your lordship. And one favour more I am to entreat of your lordship in his behalf, that you will be pleased to speak to one of the assistants of the chancellor of the duchy, in whose court he hath a cause depending, as he will more fully inform your lordship himself, to see that he may have a fair proceeding, according to justice: for which I will ever rest

Your lordship's faithful friend and servant,

G. BUCKINGHAM.

Royston, 15th of October, 1620.

TO THE MARQUIS OF BUCKINGHAM.

My very good loan,

Your lordship desiring to understand what cometh of the business, after which the prince hearkeneth, I was in doubt which of the two businesses you meant; that of the Duchy or that of the Prerogative-Court for wills; for both are recommended from the prince. But be it one, or be it the other, no time hath been lost in either; for Mr. Secretary Naunton and I have entered into both. For the Duchy, we have already stayed all proceeding to the king's disservice for those manors, which are not already passed under seal. For that which is passed, we have heard the attorney† with none or little satisfaction hitherto. The chancellor‡ is not yet come, though sent for. For the other, we have heard Sir John Bennet,§ and given him leave to acquaint my lord of Canterbury; and have required the solicitor‖ to come well prepared for the king. So that in neither we can certify yet; and to trouble your lordship, while business is but in passage, were time lost. I ever rest

Your lordship's most obliged friend and faithful servant,

October 16, 1620. FR. VERULAM, CANC.

TO THE KING, THANKING HIS MAJESTY FOR HIS GRACIOUS ACCEPTANCE OF HIS BOOK.

May it please your Majesty,

I cannot express, how much comfort I received by your last letter of your own royal hand.¶ I see your Majesty is a star, that hath benevolent aspect and gracious influence upon all things that tend to a general good.

"Daphni, quid antiquos signorum suspicis ortus?
Ecce Dionæi processit Cæsaris astrum;
Astrum, quo segetes gauderent frugibus, et quo
Duceret apricis in collibus uva colorem."**

This work, which is for the bettering of men's bread and wine, which are the characters of temporal blessings and sacraments of eternal, I hope, by God's holy providence, will be ripened by Cæsar's star.

Your Majesty shall not only do to myself a singular favour, but to your business a material help, if you will be graciously pleased to open yourself to me in those things wherein you may be unsatisfied. For though this work, as by position and principle, doth disclaim to be tried by any thing but by experience, and the results of experience in a true way; yet the sharpness and profoundness of your Majesty's judgment ought to be an exception to this general rule; and your questions, observations, and admonishments, may do infinite good.

This comfortable beginning makes me hope farther, that your Majesty will be aiding to me, in setting men on work for the collecting of a natural and experimental history; which is *basis totius negotii*, a thing which I assure myself will be, from time to time, an excellent recreation unto you; I say, to that admirable spirit of yours, that delighteth in light: and I hope well, that even in your times many noble inventions may be discovered for man's use. For who can tell, now this mine of truth is opened, how the veins go; and what lieth higher, and what lieth lower? But let me trouble your Majesty no farther at this time. God ever preserve and prosper your Majesty.

[October 19, 1620.]

TO THE MARQUIS OF BUCKINGHAM.

My very good lord,

I send now only to give his Majesty thanks for the singular comfort which I received by his Majesty's letter of his own hand, touching my book. And I must also give your lordship of my best thanks for your letter so kindly and affectionately written.

I did even now receive your lordship's letter touching the proclamation, and do approve his Majesty's judgment and foresight about mine own. Neither would I have thought of inserting matter of state for the vulgar, but that now-a-days there is no vulgar, but all statesmen. But, as his Majesty doth excellently consider, the time of it is not yet proper. I ever rest

Your lordship's most obliged friend and faithful servant,

FR. VERULAM, CANC.

October 19, 1620.

Indorsed,

In answer to his Majesty's directions touching the proclamation for a parliament.

* Harl. MSS. Vol. 7000. † Sir Henry Yelverton.
‡ Sir Humphrey May, made chancellor of the duchy, March 9, 1617-18.
§ Judge of the prerogative-court of Canterbury In 1621 he was fined 20,000*l.* for bribery, corruption, and exaction in that office. He died in 1627.
‖ Sir Thomas Coventry.
¶ Of the 16th of October, 1620, printed in Lord Bacon's works.
** Virgil, Eclog. IX. vers. 46—50.

Notes of a Speech of the Lord Chancellor *in the Star-Chamber, in the cause of* Sir Henry Yelverton, *Attorney-General.**

Sorry for the person, being a gentleman that I lived with in Gray's-Inn; served with him when I was attorney; joined with him in many services, and one, that ever gave me more attributes in public than I deserved; and, besides, a man of very good parts, which with me is friendship at first sight; much more joined with so ancient an acquaintance.

But, as a judge, I hold the offence very great, and that without pressing measure; upon which I will only make a few observations, and so leave it.

1. First I observe the danger and consequence of the offence: for if it be suffered, that the learned council shall practise the art of multiplication upon their warrants, the crown will be destroyed in small time. The great seal, the privy seal, signet, are solemn things; but they follow the king's hand. It is the bill drawn by the learned council and the docquet, that leads the king's hand.

2. Next I note the nature of the defence. As first, that it was error in judgment: for this surely, if the offence were small, though clear or great, but doubtful, I should hardly sentence it. For it is hard to draw a straight line by steadiness of hand; but it could not be the swerving of the hand. And herein I note the wisdom of the law of England, which termeth the highest contempts and excesses of authority, *misprisions;* which if you take the sound and derivation of the words, is but *mistaken:* but if you take the use and acceptation of the word, it is high and heinous contempts and usorpations of authority; whereof the reason I take to be, and the name excellently imposed; for that main mistaking, it is ever joined with contempt; for he, that reveres, will not easily mistake; but he, that slights, and thinks more of the greatness of his place than of the duty of his place, will soon commit misprisions.

Indorsed,

Star-chamber, October 24, 1620. *Notes upon Mr. Attorney's cause.*

TO THE MARQUIS OF BUCKINGHAM.

My very good lord,

It may be, your lordship will expect to hear from me what passed yesterday in the star-chamber, touching Yelverton's cause, though we desired secretary Calvert to acquaint his Majesty therewith.

To make short, at the motion of the attorney, in person at the bar, and at the motion of my lord steward† in court, the day of proceeding is deferred till the king's pleasure is known. This was against my opinion then declared plain enough; but put to votes, and ruled by the major part, though some concurred with me.

I do not like of this course, in respect that it puts the king in a strait; for either the note of severity must rest upon his Majesty, if he go on; or the thanks of clemency is in some part taken away, if his Majesty go not on.

I have *cor unum et via una;* and therefore did my part as a judge and the king's chancellor. What is farther to be done, I will advise the king faithfully, when I see his Majesty and your lordship. But before I give advice, I must ask a question first.

God ever preserve and prosper you.

Your lordship's most obliged friend and faithful servant,

FR. VERULAM, CANC.

October 28, 1620.

LORD CHANCELLOR BACON TO THE MARQUIS OF BUCKINGHAM‡

My very good lord,

Yesternight we made an end of Sir Henry Yelverton's cause. I have almost killed myself with sitting almost eight hours. But I was resolved to sit it through. He is sentenced to imprisonment in the Tower during the king's pleasure. The fine of 4000*l.* and discharge of his place, by way of opinion of the court, referring it to the king's pleasure. How I stirred the court, I leave it to others to speak; but things passed to his Majesty's great honour. I would not for any thing but he had made his defence; for many chief points of the charge were deeper printed by the defence. But yet I like it not in him; the less because he retained Holt, who is ever retained but to play the fool. God ever prosper you.

Your lordship's most obliged friend and faithful servant,

FR. VERULAM, CANC.

11 Nov. 1620.

TO THE KING.

It may please your most excellent majesty,

In performance of your royal pleasure, signified by Sir John Suckling,§ we have at several times considered of the petition of Mr. Christopher Villiers,‖ and have heard, as well the registers and ministers of the prerogative-court of Canterbury, and their council, as also the council of the lord archbishop of Canterbury. And setting aside such other points, as are desired by the petition, we do

* He was prosecuted in the star-chamber, for having passed certain clauses in a charter, lately granted to the city of London, not agreeable to his Majesty's warrant, and derogatory to his honour. But the chief reason of the severity against him was thought to be the marquis of Buckingham's resentment against him, for having opposed, according to the duty of his office, some oppressive, if not illegal, patents, which the projectors of those times were busy in preparing.

† The duke of Lenox.

‡ From the collections of the late Robert Stephens, Esq.

§ He was afterwards comptroller of the household to king Charles I. and father of the poet of the same name.

‖ Youngest brother to the marquis of Buckingham. He was created, April 23, 1623, baron of Daventry and earl of Anglesey. He died September 24, 1624.

think, that your Majesty may by law, and without inconvenience, appoint an officer, that shall have the engrossing of the transcripts of all wills to be sealed with the seal of either of the prerogative-courts, which shall be proved *in communi forma*; and likewise of all inventories, to be exhibited in the same courts.

We see it necessary, that all wills, which are not judicially controverted, be engrossed before the probate. Yet as the law now stands, no officer of those courts can lawfully take any fee or reward for engrossing the said wills and inventories, the statute of the 21st of king Henry VIIIth restraining them. Wherefore we hold it much more convenient, that it should be done by a lawful officer, to be appointed by your Majesty, than in a cause not warrantable by law. Yet our humble opinion and advice is, that good consideration be had in passing this book, as well touching a moderate proportion of fees to be allowed for the pains and travel of the officer, as for the expedition of the suitor, in such sort that, the subject may find himself in better case than he is now, and not in worse.

But however we conceive this may be convenient in the two courts of prerogative, where there is much business, yet in the ordinary course of the bishops diocesans, we hold the same will be inconvenient, in regard of the small employment.

Your Majesty's most faithful and obedient servants,

FR. VERULAM, CANC.
ROBERT NAUNTON.
HENRY MONTAGU.*

November 15, 1620.

TO THE LORD CHANCELLOR.†

After my very hearty commendations, I have acquainted his Majesty with your letter, who commanded me to tell you, that he had been thinking upon the same point, whereof you write, three or four days ago, being so far from making any question of it, that he every day expected when a writ should come down. For at the creation of prince Henry, the lords of the council and judges assured his Majesty of as much, as the precedents, mentioned in your letter, speak of. And so I rest

Your lordship's very loving friend at command,

G. BUCKINGHAM.

Newmarket, the 24th of Novemb. 1620.

Indorsed,

Showing his Majesty is satisfied with precedents, touching the prince's summons to parliament.

TO THE MARQUIS OF BUCKINGHAM.

My very good Lord,

Your lordship may find that in the number of patents, which we have represented to his Majesty, as like to be stirred in by the lower house of parliament, we have set down three, which may concern some of your lordship's special friends, which I account as mine own friends; and so showed myself, when they were in suit. The one, that to Sir Giles Mompesson, touching the inns; the second to Mr. Christopher Villiers and Mr. Maule, touching the recognizances for ale-houses; the third, to Mr. Lieutenant of the Tower, touching the cask. These in duty could not be omitted, for that specially the two first of them are more rumoured, both by the vulgar and by the gentlemen, yea, and by the judges themselves, than any other patents at this day. Therefore I thought it appertained to the singular love and affection, which I bear you upon so many obligations, to wish and advise, that your lordship, whom God hath made in all things so fit to be beloved, would put off the envy of these things, which I think in themselves bear no great fruit; and rather take the thanks for ceasing them, than the note for maintaining them. But howsoever let me know your mind, and your lordship shall find I will go your way.

I cannot express, how much comfort I take in the choice his Majesty hath made of my lord chief justice to be lord treasurer; not for his sake, nor for my sake, but for the king's sake; hoping, that now a number of counsels, which I have given for the establishment of his Majesty's estate, and have lain dead and deeper than this snow, may now spring up and bear fruit; the rather, for that I persuade myself, he and I shall run one way. And yet I know well, that in this doubling world *cor unum et via una* is rare in one man, but more rare between two. And therefore, if it please his Majesty, according to his prudent custom in such cases, to cast out, now at his coming down, some words, which may the better knit us in conjunction to do him service, I suppose it will be to no idle purpose.

And as an old truant in the commission of the treasury, let me put his Majesty in remembrance of three things now upon his entrance, which he is presently to go in hand with: the first, to make Ireland to bear the charge thereof; the second, to bring all accounts to one purse in the exchequer; the third, by all possible means to endeavour the taking off of the anticipations. There be a thousand things more; but these being his Majesty's last commands to the commissioners of the treasury, with such as in his Majesty's princely judgment shall occur, will do well to season his place.

Your lordship's most obliged friend and faithful servant,

FR. VERULAM, CANC.

November 29, 1620.

As soon as I had written this letter, I received your lordship's letter, touching my lord chief justice, which redoubled my comfort, to see how his Majesty's thoughts and mine, his poor servant's, and your lordship's meet.

† Harl. MSS. Vol. 7000.

* Lord chief justice of the king's bench, who, on the 3d of December following, was advanced to the post of high treasurer.

I send enclosed names for the speaker; and if his Majesty, or your lordship, demand our opinion, which of them, my lord chief justice will tell you. It were well it were despatched; for else I will not dine with the speaker; for his drink will not be laid in time enough.

I beseech your lordship, care may be taken, that our general letter may be kept secret, whereof my lord chief justice will tell you the reason.

TO THE KING.

IT MAY PLEASE YOUR MOST EXCELLENT MAJESTY,

ACCORDING to your commandment, we have heard once more the proctors of the prerogative-court, what they could say; and find no reason to alter, in any part, our former certificate. Thus much withal we think fit to note to your Majesty, that our former certificate, which we now ratify, is principally grounded upon a point in law, upon the statute of 21 Henry VIII. wherein we the chancellor and treasurer, for our own opinions, do conceive the law is clear; and your solicitor-general * concurs.

Now whether your Majesty will be pleased to rest in our opinions, and so to pass the patents; or give us leave to assist ourselves with the opinion of some principal judges now in town, whereby the law may be the better resolved, to avoid farther question hereafter; we leave it to your Majesty's royal pleasure. This we represent the rather, because we discern such a confidence in the proctors, and those upon whom they depend, as, it is not unlike, they will bring it to a legal question.

And so we humbly kiss your Majesty's hands, praying for your preservation.

Your Majesty's most humble and obedient servants,

FR. VERULAM, CANC.
HENRY MONTAGU,
ROBERT NAUNTON.

York-house, December 12, 1620.

THE LORD CHANCELLOR AND TWO CHIEF JUSTICES† TO THE MARQUIS OF BUCKINGHAM.

OUR VERY GOOD LORD,

IT may please his Majesty to call to mind, that when we gave his Majesty our last account of parliament business in his presence, we went over the grievances of the last parliament in 7mo,‡ with our opinion by way of probable conjecture, which of them are likely to fall off, and which may perchance stick and be renewed. And we did also then acquaint his Majesty, that we thought it no less fit to take into consideration grievances of like nature, which have sprung up since the said last session, which are the more like to be called upon, by how much they are the more fresh, signifying withal, that they were of two kinds; some proclamations and commissions, and many patents; which nevertheless, we did not trouble his Majesty withal in particular: partly, for that we were not then fully prepared, as being a work of some length, and partly, for that we then desired and obtained leave of his Majesty to communicate them with the council-table. But now since I, the chancellor, received his Majesty's pleasure by secretary Calvert, that we should first present them to his Majesty with some advice thereupon provisionally, and as we are capable, and thereupon know his Majesty's pleasure before they be brought to the table, which is the work of this despatch.

And hereupon his Majesty may be likewise pleased to call to mind, that we then said, and do now also humbly make remonstrance to his Majesty, that in this we do not so much express the sense of our own minds or judgments upon the particulars, as we do personate the lower house, and cast with ourselves what is like to be stirred there. And therefore if there be any thing, either in respect of the matter or the persons, that stands not so well with his Majesty's good liking, that his Majesty would be graciously pleased not to impute it unto us; and withal to consider, that it is to this good end, that his Majesty may either remove such of them, as in his own princely judgment, or with the advice of his council, he shall think fit to be removed; or be the better provided to carry through such of them, as he shall think fit to be maintained, in case they should be moved; and so the less surprised.

First, therefore, to begin with the patents, we find three sorts of patents, and those somewhat frequent, since the session of 7mo, which *in genere* we conceive may be most subject to exception of grievance; patents of old debts, patents of concealments, and patents of monopolies, and forfeitures for dispensations of penal laws, together with some other particulars, which fall not so properly under any one head.

In these three heads, we do humbly advise several courses to be taken: for the first two, of old debts and concealments, for that they are in a sort legal, though there may be found out some point in law to overthrow them; yet it would be a long business by course of law, and a matter unusual by act of council, to call them in. But that, that moves us chiefly to avoid the questioning them at the council-table, is, because if they shall be taken away by the king's act, it may let in upon him a flood of suitors for recompence; whereas, if they be taken away at the suit of the parliament, and a law thereupon made, it frees the king, and leaves him to give recompence only where he shall be pleased to intend grace. Wherefore we conceive

* Sir Thomas Coventry, who was made attorney-general, Jan. 14, 1624-5.

† Sir Henry Montagu of the king's bench, and Sir Henry Hobart of the common pleas.

‡ That which began February 9, 1609; and was prorogued July 23, 1610.

the most convenient way will be, if some grave and discreet gentleman of the country, such as have lost relation to the court, make, at fit times, some modest motion touching the same; and that his Majesty would be graciously pleased to permit some law to pass, for the time past only, no ways touching his Majesty's regal power, to free the subjects from the same; and so his Majesty, after due consultation, to give way unto it.

For the third, we do humbly advise, that such of them, as his Majesty shall give way to have called in, may be questioned before the council-table, either as granted contrary to his Majesty's book of bounty, or found since to have been abused in the execution, or otherwise by experience discovered to be burdensome to the country. But herein we shall add this farther humble advice, that it be not done as matter of preparation to a parliament; but that occasion be taken, partly upon revising of the book of bounty, and partly upon the fresh examples in Sir Henry Yelverton's case of abuse and surreption in obtaining of patents; and likewise, that it be but a continuance in conformity of the council's former diligence and vigilancy, which hath already stayed and revoked divers patents of like nature, whereof we are ready to show the examples. Thus, we conceive, his Majesty shall keep his greatness, and somewhat shall be done in parliament, and somewhat out of parliament, as the nature of the subject and business require.

We have sent his Majesty herewith a schedule of the particulars of these three kinds; wherein, for the first two, we have set down all that we could at this time discover: but in the latter, we have chosen out but some, that are most in speech, and do most tend, either to the vexation of the common people, or the discountenancing of our gentlemen and justices, the one being the original, the other the representative of the commons.

There being many more of like nature, but not of like weight, nor so much rumoured, which, to take away now in a blaze, will give more scandal, that such things were granted, than thanks, that they be now revoked.

And because all things may appear to his Majesty in the true light, we have set down, as well the suitors as the grants, and not only those in whose names the patents were taken, but those whom they concern, as far as comes to our knowledge.

For proclamations and commissions, they are tender things; and we are willing to meddle with them sparingly. For as for such as do but wait upon patents, wherein his Majesty, as we conceived, gave some approbation to have them taken away, it is better they fall away, by taking away the patent itself, than otherwise; for a proclamation cannot be revoked but by proclamation, which we avoid.

For those commonwealth bills, which his Majesty approved to be put in readiness, and some other things, there will be time enough hereafter to give his Majesty account, and amongst them, of the extent of his Majesty's pardon, which, if his subjects do their part, as we hope they will, we do wish may be more liberal than of later times, a pardon being the ancient remuneration in parliament.

Thus hoping his Majesty, out of his gracious and accustomed benignity, will accept of our faithful endeavours, and supply the rest by his own princely wisdom and direction; and also humbly praying his Majesty, that when he hath himself considered of our humble propositions, he will give us leave to impart them all, or as much as he shall think fit, to the lords of his council, for the better strength of his service, we conclude with our prayers for his Majesty's happy preservation, and always rest, &c.

Indorsed,

The lord chancellor and the two chief justices to the king, concerning parliament business.

TO THE LORD CHANCELLOR, AND THE LORD MANDEVILLE, LORD TREASURER OF ENGLAND.*

My honourable Loads,

His Majesty is pleased, according to your lordships' certificate, to rely upon your judgments, and hath made choice of Sir Robert Lloyd, knight, to be patentee and master of the office of engrossing the transcripts of all wills and inventories in the prerogative-courts, during his highness's pleasure, and to be accountable unto his Majesty for such profits as shall arise out of the same office. And his Majesty's farther pleasure is, that your lordship forthwith proportion and set down, as well a reasonable rate of fees for the subject to pay for engrossing the said transcripts, as also such fees, as your lordship shall conceive fit to be allowed to the said patentee for the charge of clerks and ministers for execution of the said office. And to this effect his Majesty hath commanded me to signify his pleasure to his solicitor-general† to prepare a book for his Majesty's signature. And so I bid your lordship heartily well to fare, and remain

Your lordship's very loving friend,

G. BUCKINGHAM.

Royston, December 17, 1620.

TO THE MARQUIS OF BUCKINGHAM.

My very good lord,

I was so full of cold, as I could not attend his Majesty to-day. Yesterday I despatched the proclamation with the council. There was a motion to have sharpened it; but better none, than over sharp at first. I moved the council also for supplying the committee for drawing of bills and some other matters, in regard of my lord Hobart's ‡ sickness, who, I think, will hardly escape; which, though it be happiness for him, yet it is loss for us.

Meanwhile, as I propounded to the king, which

* Harl. MSS. Vol. 7000 † Sir Thomas Coventry. ‡ Lord chief justice of the common-pleas.

he allowed well, I have broken the main of the parliament into questions and parts, which I send. It may be, it is an over-diligence; but still methinks there is a middle thing between art and chance: I think they call it providence, or some such thing, which good servants owe to their sovereign, especially in cases of importance and straits of occasions. And those huffing elections, and general licence of speech, ought to make us the better provided. The way will be, if his Majesty will be pleased to peruse these questions advisedly, and give me leave to wait on him; and then refer it to some few of the council, a little to advise upon it. I ever rest

Your lordship's most obliged friend and faithful servant,

FR. VERULAM, CANC.

December 23, 1620.

TO THE LORD CHANCELLOR.*

My honourable lord,

His Majesty hath commanded me to signify his pleasure unto your lordship, that Sir Thomas Coventry, now his solicitor-general, be forthwith made his attorney-general; and that your lordship give order to the clerk of the crown to draw up a grant of the said place unto him accordingly. And so I rest

Your lordship's faithful friend and servant,

G. BUCKINGHAM.

Whitehall, 9th of January, 1620.

TO THE LORD CHANCELLOR.†

My honourable lord,

I have been entreated to recommend unto your lordship the distressed case of the lady Martin, widow of Sir Richard Martin, deceased, who hath a cause to be heard before your lordship in the chancery, at your first sitting in the next term, between her and one Archer, and others, upon an ancient statute, due long since unto her husband; which cause, I am informed, hath received three verdicts for her in the common law, a decree in the exchequer chamber, and a dismission before your lordship: which I was the more willing to do, because I have seen a letter of his Majesty to the said Sir Richard Martin, acknowledging the good service that he did him in this kingdom, at the time of his Majesty's being in Scotland. And therefore I desire your lordship, that you would give her a full and fair hearing of her cause, and a speedy despatch thereof, her poverty being such, that having nothing to live on but her husband's debts, if her suit long depend, she shall be enforced to lose her cause for want of means to follow it: wherein I acknowledge your lordship's favour, and rest

Your lordship's faithful friend and servant,

G. BUCKINGHAM.

Whitehall, the 13th of January, 1620.

* Harl. MSS. Vol 7000.
† Ibid.

TO THE LORD CHANCELLOR.‡

My honourable lord,

His Majesty hath commanded me to signify his pleasure unto you, that you give present order to the clerk of the crown to draw a bill to be signed by his Majesty for Robert Heath, late recorder of London, to be his Majesty's solicitor-general. So I rest

Your lordship's faithful friend and servant,

G. BUCKINGHAM.

Theobald's, 20th of January, 1620.

‡ Ibid.

TO THE KING.§

May it please your Majesty,

I thank God I number days, both in thankfulness to him, and in warning to myself. I should likewise number your Majesty's benefits, which, as to take them in all kinds, they are without number; so even in this kind of steps and degrees of advancement, they are in greater number, than scarcely any other of your subjects can say. For this is now the eighth time that your Majesty hath raised me.

You formed me of the learned council extraordinary, without patent or fee, a kind of *individuum vagum*. You established me, and brought me into ordinary. Soon after you placed me solicitor, where I served seven years. Then your Majesty made me your attorney, or procurator-general; then privy counsellor, while I was attorney; a kind of miracle of your favour, that had not been in many ages; thence keeper of your seal; and, because that was a kind of planet, and not fixed, chancellor: and when your Majesty could raise me no higher, it was your grace to illustrate me with beams of honour, first making me baron Verulam, and now viscount St. Alban. So this is the eighth rise or reach, a diapason in music, even a good number, and accord for a close. And so I may, without superstition, be buried in St. Alban's habit or vestment.

Besides the number, the obligation is increased by three notes or marks: first, that they proceed from such a king; for honours from some kings are but great chancels, or counters, set high; but from your Majesty, they are indeed dignities, by the co-operation of your grace. Secondly, in respect of the continuance of your Majesty's favour, which proceedeth, as the Divine favour, from grace to grace. And, thirdly, these splendours of honour are like your freest patents, *absque uliquid inde reddendo*. Offices have burden of cares and labours; but honours have no burden but thankfulness, which doth rather raise men's spirits, than *accable* them, or press them down.

Then I must say, *quid retribuam?* I have nothing of mine own. That that God hath given me, I shall present unto your Majesty; which is care and diligence, and assiduous endeavour, and that

§ This seems to have been written by lord St. Albans, just after he was created a viscount by that title, January 27, 1620.

which is the chief, *eor unum et viam unam;* hoping, that your Majesty will do as your superior doth; that is, finding my heart upright, you will bear with my other imperfections. And lastly, your Majesty shall have the best of my time, which, I assure myself, I shall conclude in your favour, and survive in your remembrance. And that is my prayer for myself. The rest shall be in prayers for your Majesty.

TO THE LORD CHANCELLOR.*

My noble lord,

I have showed your letter of thanks to his Majesty, who saith there are too many thanks in it for so small a favour; which he holdeth too little to encourage so well a deserving servant. For myself, I shall ever rejoice at the manifestation of his Majesty's favour towards you, and will contribute all, that is in me, to the increasing of his good opinion; ever resting

Your lordship's faithful friend and servant,

G. BUCKINGHAM.

Speech of the Lord Viscount St. Alban, *Lord Chancellor, to the Parliament, January* 30, 1620.

My lords and masters,

You have heard the king's speech; and it makes me call to mind what Solomon saith, who was also a king: "The words of the wise are as nails and pins, driven in and fastened by the masters of assemblies." The king is the master of this assembly; and though his words, in regard of the sweetness of them, do not prick; yet, in regard of the weight and wisdom of them, I know they pierce through and through; that is, both into your memories, and into your affections; and there I leave them.

As the king himself hath declared unto you the causes of the convoking of this parliament; so he hath commanded me to set before you the true institution and use of a parliament, that thereby you may take your aim, and govern yourselves the better in parliament matters: for then are all things in best state, when they are preserved in their primitive institution; for otherwise ye know the principle of philosophy to be, that the corruption or degeneration of the best things is the worst.

The kings of this realm have used to summon their parliaments or estates for three ends or purposes; for advice, for assent, and for aid.

For advice, it is no doubt great surety for kings to take advice and information from their parliament. It is advice, that proceedeth out of experience; it is not speculative or abstract. It is a well-tried advice, and that passeth many revennes, and hath Argus's eyes. It is an advice, that commonly is free from private and particular ends, which is the bane of counsel. For although some particular members of parliament may have their private ends; yet one man sets another upright; so that the resultate of their counsels is, for the most part, direct and sincere. But this advice is to be given with distinction of the subjects: they are to tender and offer their advice by bill or petition, as the case requires. But in those things, that are *Arcana Imperii*, and reserved points of sovereignty, as making of war and peace, or the like, there they are to apply their advice to that, which shall be communicated unto them by the king, without pressing farther within the veil, or reaching forth to the forbidden fruit of knowledge. In these things the rule holds, "tantum permissum quantum commissum."

TO THE MARQUIS OF BUCKINGHAM.

My very good lord,

With due thanks to your last visit, this day is a play day for me. But I will wait on your lordship, if it be necessary.

I do hear from divers of judgment, that to-morrow's conference † is like to pass in a calm, as to the referees.‡ Sir Lionel Cranfield, who hath been formerly the trumpet, said yesterday, that he did now incline to Sir John Walter's opinion and motion, not to have the referees meddled with otherwise than to discount it from the king; and so not to look back, but to the future. And I do hear almost all men of judgment in the house wish now that way. I woo nobody: I do but listen, and I have doubt only of Sir Edward Coke, who, I wish, had some round *caveat* given him from the king; for your lordship hath no great power with him; but I think a word from the king mates him.

If things be carried fair by the committees of the lower house, I am in some doubt, whether there will be occasion for your lordship to speak to-morrow; though, I confess, I incline to wish you did, chiefly because you are fortunate in that kind; and, to be plain also, for our better countenance, when your lordship, according to your noble proposition, shall show more regard of the fraternity you have with great counsellors, than of the interest of your natural brother.

Always, good my lord, let us think of times out of parliament, as well as the present time in parliament, and let us not all be put *ex pourpoint*. Fair and moderate courses are ever best in causes of estate: the rather, because I wish this parliament, by the sweet and united passages thereof, may increase the king's reputation with foreigners, who may make a far other judgment than we mean, of a beginning to question great counsellors and officers of the crown, by courts, or assemblies of estates.

* Harl. MSS. Vol. 7000.

† On Monday the 5th of March, 1620-1, the house of lords received a message from the commons, desiring a conference touching certain grievances, principally concerning Sir Giles Mompesson. See Journal of the House of Lords.

‡ Those, to whom the king referred the petitions, to consider, whether they were fit to be granted or no. This explanation of the word *referees*, I owe to a note in a MS. letter, written to the celebrated Mr. Joseph Mead, of Christ's College, Cambridge.

But the reflection upon my particular in this makes me more sparing, than perhaps, as a counsellor, I ought to be. God ever preserve and prosper you.

Your lordship's true servant all and ever,

FR. ST. ALBAN, CANC.

March 7, the day I received the seal, 1620.

TO THE KING.*

It may please your Majesty,

I received your Majesty's letter about midnight: and because it was stronger than the ancient summons of the exchequer, which is *sicut teipsum et omnia tua diligis;* whereas this was *sicut me diligis;* I used all possible care to effect your Majesty's good will and pleasure.

I sent early to the prince, and to my lord treasurer: and we attended his highness soon after seven of the clock, at Whitehall, to avoid farther note. We agreed, that, if the message came, we would put the lords into this way, that the answer should be, that we understood they came prepared both with examination and precedent; and we likewise desired to be alike prepared, that the conference might be with more fruit.

I did farther speak with my lord of Canterbury, when I came to the house, not letting him know any part of the business, that he would go on with a motion, which he had told me of the day before, that the lords house might not sit Wednesday and Friday, because they were convocation-days; and so was the former custom of parliament.

As good luck was, the house read two bills, and had no other business at all: whereupon my lord of Canterbury made his motion; and I adjourned the house till Saturday. It was no sooner done, but came the message from the lower house. But the *consummatum est* was past, though I perceived a great willingness, in many of the lords, to have recalled it, if it might have been.

So with my best prayers for your Majesty's preservation, I rest

Your Majesty's most bounden and most devoted servant,

FR. ST. ALBAN, CANC.

Thursday, at eleven of our forenoon [March 8, 1620].

* The date of this letter is determined to be the 8th of March 1620-1, from the circumstance of its being mentioned to have been written on that Thursday, on which the house of lords adjourned to the Saturday following. It appears from the journal of that house, that on the 8th of March 1620, the said house, at which were present the prince of Wales and marquis of Buckingham, was adjourned to Saturday the 10th, on which day a conference of both houses was held relating to the complaint of that of the commons against Sir Giles Mompesson. Of this conference the lord chancellor made report on Monday, March 12, to the house of lords, remarking, that "the inducement to this conference was to clear the king's honour, touching grants to Sir Giles, and the passages in procuring the same." After this report of the conference, the lord chamberlain, William earl of Pembroke, complained to the house, that *two great lords*, meaning the lord chancellor, and the lord treasurer, the lord viscount Mandeville, had, in that conference, *spake in their own defence, not being allowed to do so when the committees were named.* Upon which both the lords acknowledged their error, and begged pardon of the house.

TO THE MARQUIS OF BUCKINGHAM.†

My very good lord,

Your lordship spoke of purgatory. I am now in it; but my mind is in a calm; for my fortune is not my felicity. I know I have clean hands, and a clean heart; and, I hope, a clean house for friends or servants. But Job himself, or whosoever was the justest judge, by such hunting for matters against him, as hath been used against me, may for a time seem foul, especially in a time, when greatness is the mark, and accusation is the game. And if this be to be a chancellor, I think, if the great seal lay upon Hounslow Heath, nobody would take it up. But the king and your lordship will, I hope, put an end to these my straits one way or other. And in troth that, which I fear most, is, lest continual attendance and business, together with these cares, and want of time to do my weak body right this spring by diet and physic, will cast me down; and that it will be thought feigning, or fainting. But I hope in God I shall hold out. God prosper you.

TO THE CHANCELLOR OF THE DUCHY, SIR HUMPHREY MAY.

Good Mr. Chancellor,

There will come, upon Friday, before you a patent ‡ of his Majesty's for the separation of the company of apothecaries from the company of grocers, and their survey, and the erecting them into a corporation of themselves under the survey of the physicians. It is, as I conceive, a fair business both for law and conveniency, and a work, which the king made his own, and did, and, as I hear, doth take much to heart. It is *in favorem vitæ*, where the other part is *in favorem lu* ›. You may perhaps think me partial to apothecaries, that have been ever puddering in physic all my life. But there is a circumstance, that touches upon me but *post diem*, for it is comprehended in the charge and sentence passed upon me. It is true, that after I had put the seal to the patent, the apothecaries § presented me with a hundred pounds. It was no judicial affair. But howsoever, as it may not be defended, so I would be glad it were not raked up

† This letter seems to have been written soon after lord St. Alban began to be accused of abuses in his office of chancellor.

‡ The patent for incorporating the apothecaries by themselves, by the appellation of "The masters, wardens, and society of the art and mystery of apothecaries of London," was dated December 6, 1617. They had been incorporated with the company of grocers, April 9, 1606.

§ His lordship being charged by the house of commons, that he had received 100*l.* of the *new company of apothecaries, that stood against the grocers*, as likewise a taster of gold worth between 400 and 500*l.* with a present of ambergrise, from *the apothecaries that stood with the grocers*, and 200*l* of the grocers; he admits the several sums to have been received of the three parties, but alleges, that he considered those presents as no judicial business, but a concord of composition between the parties; and as he thought they had all three received good, and they were all common purses, he thought it the less matter to receive what they voluntarily presented; for if he had taken it in the nature of a bribe, he knew it could not be concealed, because it must be put to the account of the three several companies.

more than needs. I doubt only the chair * because I hear he useth names sharply; and besides, it may be, he hath a tooth at me yet, which is not fallen out with age. But the best is, as one saith, "satis est lapsos non erigere; urgere vero jacentes, aut præcipitantes impellere, certe est inhumanum." Mr. Chancellor, if you will be nobly pleased to grace me upon this occasion, by showing tenderness of my name, and commiseration of my fortune, there is no man in that assembly, from whose mouth I had rather it should come. I hope it will be no dishonour to you. It will oblige me much, and be a worthy fruit of our last reintegration of friendship. I rest

Your faithful friend to do you service.

Memoranda of what the Lord Chancellor *intended to deliver to the* King, *April* 16, 1621,† *upon his first access to his Majesty, after his troubles.*

That howsoever it goeth with me, I think myself infinitely bound to his Majesty for admitting me to touch the hem of his garment; and that, according to my faith, so be it unto me.

That I ought also humbly to thank his Majesty for that, in that excellent speech of his which is printed, that speech of so great maturity, wherein the elements are so well mingled, by kindling affection, by washing away aspersion, by establishing of opinion, and yet giving way to opinion, I do find some passages, which I do construe to my advantage.

And lastly, I have heard from my friends, that, notwithstanding these waves of information, his Majesty mentions my name with grace and favour.

In the next place, I am to make an oblation of myself into his Majesty's hands, that, as I wrote to him, I am as *clay in his hands*, his Majesty may make a vessel of honour or dishonour of me, as I find favour in his eyes; and that I submit myself wholly to his grace and mercy, and to be governed both in my cause and fortunes by his direction, knowing that his heart is inscrutable for good. Only I may express myself thus far, that my desire is, that the thread, or line, of my life, may be no longer than the thread, or line, of my service: I mean, that I may be of use to your Majesty in one kind or other.

Now for any farther speech, I would humbly pray his Majesty, that whatsoever the law of nature shall teach me to speak for my own preservation, your Majesty will understand it to be in such sort, as I do nevertheless depend wholly upon your will and pleasure. And under this submission, if your Majesty will graciously give me the hearing, I will open my heart unto you, both touching my fault, and fortune.

For the former of these, I shall deal ingenuously with your Majesty, without seeking fig-leaves or subterfuges.

There be three degrees, or cases, as I conceive, of gifts and rewards given to a judge:

The first is of bargain, contract, or promise of reward, *pendente lite*. And this is properly called "venalis sententia," or "baratria," or "corruptelæ munerum." And of this my heart tells me, I am innocent, that I had no bribe or reward in my eye or thought, when I pronounced any sentence or order.

The second is a neglect in the judge to inform himself whether the cause be fully at an end or no, what time he receives the gift; but takes it upon the credit of the party, that all is done; or otherwise omits to inquire.

And the third is, when it is received *sine fraude*, after the cause ended; which, it seems by the opinion of the civilians, is no offence. Look into the case of simony, &c.

* Sir Robert Philips was chairman of the committee of the house of commons for inquiring into the abuses of the courts of justice. He was son of Sir Edward Philips, Master of the Rolls, who died September 11, 1614, being succeeded by Sir Julius Cæsar, to whom the king had given, January 16, 1610-11, under the great seal, the reversion of that post.

† A committee of the house of commons had been appointed about the 12th of March, 1620-1, to inspect the abuses of the courts of justice, of which Sir Edward Sackville was named the chairman, but by reason of some indisposition, Sir Robert Philips was chosen in his room. The first thing they fell upon was bribery and corruption, of which the lord chancellor was accused by Mr. Christopher Aubrey and Mr. Edward Egerton; who affirmed, that they had procured money to be given to his lordship to promote their causes depending before him. This charge being corroborated by some circumstances, a report of it was made from the committee to the house, on Thursday, the 15th of March; and a second on the 17th, of other matters of the same nature, charged upon his lordship. The heads of the accusation having been drawn up were presented by the commons to the lords, in a conference, on Monday, the 19th of the same month. The subject of this conference being reported, the next day, to the house of lords, by the lord treasurer, the marquis of Buckingham presented to their lordships a letter to them from the lord chancellor, dated that day. Upon this letter, answer was sent from the lords to the lord chancellor, on the 20th, that they had received his letter and intended to proceed in his cause, now before them, according to the rule of justice, desiring his lordship to provide for his just defence. The next day, March 21, the commons sent to the lords a further charge against the lord chancellor, and their lordships, in the mean time, examined the complaints against him, and witnesses in the house, and appointed a select committee of themselves to take examinations likewise. Towards the latter end of March the session was discontinued for some time, in hopes, as it was imagined, of softening the lord chancellor's fall; but upon the re-assembling of the parliament, more complaints being daily represented, on Wednesday, April 24, the prince signified unto the lords, that his lordship had sent a submission, dated the 22nd. Which the lords having considered and heard the collection of corruptions charged on him, and the proofs read, they sent a copy of the same, without the proofs, to him, by baron Denham and Mr. Attorney-general, with this message, that his lordship's confession was not fully set down by him; and that they had therefore sent him the particular charge, and expected his answer to it with all convenient expedition. To which he answered, that he would return their lordships an answer with speed. On the 25th of April, the lords considered of this said answer, and sent a second message by the same persons, that having received a doubtful answer to their message, sent him the day before, they now sent to him again, to know directly and presently, whether his lordship would make his confession, or stand upon his defence. His answer, returned by the same messengers, was, that he would make no manner of defence, but meant to acknowledge corruption, and to make a particular confession to every point, and after that an humble submission; but humbly craved liberty, that where the charge was more full than he finds the truth of the fact, he may make declaration of the truth in such particulars, the charge being brief, and containing not all circumstances. The lords sent the same messengers, to let him know, that they granted him time to do this till the Monday following; when he sent his confession and submission; which being avowed by him to several lords, sent to him, the lords resolved, on the 2nd of May, to proceed to sentence him the next morning, and summoned him to attend; which he excusing on account of being confined to his bed by sickness, they gave judgment accordingly on the 3d of May, 1621.

Draught of another paper to the same purpose.

THERE be three degrees, or cases, of bribery, charged or supposed, in a judge:

The first, of bargain, or contract, for reward to pervert justice.

The second, where the judge conceives the cause to be at an end, by the information of the party, or otherwise, useth not such diligence, as he ought, to inquire of it. And the third, when the cause is really ended, and it is *sine fraude*, without relation to any precedent promise.

Now if I might see the particulars of my charge, I should deal plainly with your Majesty, in whether of these degrees every particular case falls.

But for the first of them, I take myself to be as innocent, as any horn upon St. Innocents' day, in my heart.

For the second, I doubt in some particulars I may be faulty.

And for the last, I conceived it to be no fault; but therein I desire to be better informed, that I may be twice penitent, once for the fact, and again for the error. For I had rather be a briber, than a defender of bribes.

I must likewise confess to your Majesty, that of new-year's tides, and likewise at my first coming in, which was, as it were, my wedding, I did not so precisely, as perhaps I ought, examine whether those, that presented me, had causes before me, yea or no.

And this is simply all, that I can say for the present, concerning my charge, until I may receive it more particularly. And all this while, I do not fly to that, as to say, that these things are *vitia temporis* and not *vitia hominis*.

For my fortune, *summa summorum* with me is, that I may not be made altogether unprofitable to do your Majesty service, or honour. If your Majesty continue me as I am, I hope I shall be a new man, and shall reform things out of feeling, more than another can do out of example. If I cast part of my burden, I shall be more strong and *delivré* to bear the rest. And, to tell your Majesty what my thoughts run upon, I think of writing a story of England, and of recompiling of your laws into a better digest.

But to conclude, I most humbly pray your Majesty's directions and advice. For as your Majesty hath used to give me the attribute of care of your business, so I must now cast the care of myself upon God and you.

Notes upon MICHAEL DE LA POLE'S *Case.*[*]

10 *Rich.* 2. THE offences were of three natures:

1. Deceits to the king.

2. Misgovernance in point of estate, whereby the ordinances made by ten commissioners for reformation of the state were frustrated, and the city of Ghent, in foreign parts, lost.

3. And his setting the seal to pardons for murders, and other enormous crimes.

The judgment was imprisonment, fine, and ransom, and restitution to the king, but no disablement, nor making him uncapable, no degrading in honour mentioned in the judgment; but contrariwise, in the clause, that restitution should be made and levied out of his lands and goods, it is expressly said, that because his honour of earl was not taken from him, therefore his 20*l. per annum* creation money should not be meddled with.

Observations upon THORPE'S *Case.*

24. *Edw.* 3. HIS offence was taking of money from five several persons, that were felons, for staying their process of exigent; for that it made him a kind of accessary of felony, and touched upon matter capital.

The judgment was the judgment of felony: but the proceeding had made things strong and new; first, the proceeding was by commission of *oyer* and *terminer*, and by jury; and not by parliament.

The judgment is recited to be given in the king's high and sovereign power.

It is recited likewise, that the king, when he made him chief justice, and increased his wages, did *ore tenus* say to him, in the presence of his council, that now if he bribed he would hang him: unto which penance, for so the record called it, he submitted himself. So it was a judgment by contract.

His oath likewise, which was devised some few years before, which is very strict in words, that he shall take no reward, neither before nor after, is chiefly insisted upon. And that, which is more to be observed, there is a precise proviso, that the judgment and proceeding shall not be drawn into example against any, and specially not against any who have not taken the like oath: which the lord chancellor, lord treasurer, master of the wards, &c. take not, but only the judges of both benches, and baron of the exchequer.

The king pardoned him presently after, doubting, as it seems, that the judgment was erroneous, both in matter and form of proceeding; brought it before the lords of parliament, who affirmed the judgment, and gave authority to the king in the like cases, for the time to come, to call to him what lords it pleased him, and to adjudge them.

Notes upon Sir JOHN LEE'S *Case, Steward of the King's Household.*

44 *Edw.* 3. His offences were, great oppressions in usurpation of authority, in attacking and imprisoning in the Tower, and other prisons, numbers of the king's subjects, for causes no ways appertaining to his jurisdiction; and for discharging an appellant of felony without warrant, and for deceit of the king, and extortions.

His judgment was only imprisonment in the

[*] This paper was probably drawn up on occasion of the proceedings and judgment passed upon the lord viscount St. Alban, by the house of lords, May 3, 1621.

Tower, until he had made a fine and ransom at the king's will; and no more.

Notes upon Lord LATIMER's *Case.*

50 *Edw.* 3. His offences were very high and heinous, drawing upon high treason: as the extortious taking of victuals at Bretagne, to a great value, without paying any thing; and for ransoming divers parishes there to the sum of 83,000*l.* contrary to the articles of truce proclaimed by the king; for suffering his deputies and lieutenants in Bretagne to exact, upon the towns and countries there, divers sums of money, to the sum of 150,000 crowns; for sharing with Richard Lyons in his deceit of the king; for enlarging, by his own authority, divers felons; and divers other exorbitant offences.

Notwithstanding all this, his judgment was only to be committed to the Marshalsea, and to make fine and ransom at the king's will.

But after, at the suit of the commons, in regard of those horrible and treasonable offences, he was displaced from his office, and disabled to be of the king's council; but his honours not touched, and he was presently bailed by some of the lords, and suffered to go at large.

JOHN *Lord* NEVILLE's *Case.*

50 *Edw.* 3. His offences were, the not supplying the full number of the soldiers in Bretagne, according to the allowance of the king's pay. And the second was for buying certain debts, due from the king, to his own lucre, and giving the parties small recompence, and specially in a case of the lady Ravensholme.

And it was prayed by the commons, that he might be put out of office about the king: but there was no judgment given upon that prayer, but only of restitution to the lady, and a general clause of being punished according to his demerits.

TO THE COUNT GONDOMAR, AMBASSADOR FROM THE COURT OF SPAIN.

ILLUSTRISSIMO DOMINO LEGATO,

AMORUM illustrissimæ Dominationis tuæ erga me, ejusque et fervorem et candorem, tam in prosperis rebus, quam in adversis, equabili tenore constantem perspexi. Quo nomine tibi meritas et debitas gratias ago. Me vero jam vocat et ætas, et fortuna, atque etiam genius meus, cui adhuc satis morose satisfeci, ut excedens e theatro rerum civilium literis me dedam, et ipsos actores instruam, et posteritati serviam. Id mihi fortasse honori erit, et degam tanquam in atriis vitæ melioris.

Deus illustrissimam Dominationem tuam incolumem servet et prosperam.

Servus tuus,

Junii 6, 1621. FR. ST. ALBAN.

TO COUNT GONDOMAR.*

ILLUSTRISSIMO ET EXCELLENTISSIMO DOMINO,

PERSPEXI et agnosco providentiam divinam, quod in tanta solitudine mihi tanquam cœlitus suscitaverit talem amicum, qui tantis implicatus negotiis, et in tantis temporis angustiis, curam mei habuerit, idque pro me effecerit, quod alii amici mei aut non ausi sint tentare, aut obtinere non potuerint. Atque illustrissimæ Dominationi tuæ reddent fructum proprium et perpetuum mores tui tam generosi, et erga omnia officia humanitatis et honoris propensi; neque erit fortasse inter opera tua hoc minimum, quod me, qui et aliquis fui apud vivos, neque omnino intermoriar apud posteros, ope et gratia tua erexeris, confirmaris. Ego quid possum? Ero tandem tuus, si minus usufructu, at saltem affectu, voto. Sub cineribus fortunæ vivi erunt semper ignes amoris. Te igitur humillime saluto, tibi valedico, omnia prospera exopto, gratitudinem testor, observantiam polliceor.

Illustrissimo et excellentissimo Do. Do. Didaco Sarmiento de Acunna, Comiti de Gondomar, Legato Regis Hispaniarum extraordinario in Anglia.

TO THE MARQUIS OF BUCKINGHAM.†

MY VERY GOOD LORD,

I HUMBLY thank your lordship for the grace and favour which you did both to the message and messenger, in bringing Mr. Meautys to kiss his Majesty's hands, and to receive his pleasure. My riches in my adversity hath been, that I have had a good master, a good friend, and a good servant.

Perceiving, by Mr. Meautys, his Majesty's inclination, it shall be, as it hath ever used to be to me, instead of a direction; and therefore I purpose to go forthwith to Gorhambury, humbly thanking his Majesty nevertheless, that he was graciously pleased to have acquainted my lords with my desire, if it had stood me so much upon. But his Majesty knoweth best the times and seasons; and to his grace I submit myself, desiring his Majesty and your lordship to take my letters from the Tower, as written *de profundis*, and those I continue to write to be *ex aquis salsis*.

[June 22, 1621.]

Indorsed,

To Lord Buckingham, upon bringing Mr. Meautys to him to kiss the king's hands.

* In the "Letters, Memoirs, &c. of the lord chancellor Bacon," published by Mr. Stephens, in 1736, p. 517, is a Spanish letter to him from count Gondomar, dated at London, June 14, 1621.

† This letter is reprinted here, because it differs, in some respects, from that published in "Letters, Memoirs, Parliamentary Affairs, State Papers," &c. by Robert Stephens, Esq. p. 151. Edit. London, 1736, 4to.

TO THE MARQUIS OF BUCKINGHAM.

My very good lord,

I have written, as I thought it decent in me to do, to his Majesty, the letter I send enclosed. I have great faith, that your lordship, now nobly and like yourself, will effect with his Majesty. In this the king is of himself, and it hath no relation to parliament. I have written also, as your lordship advised me, only touching that point of means. I have lived hitherto upon the scraps of my former fortunes; and I shall not be able to hold out longer. Therefore I hope your lordship will now, according to the loving promises and hopes given, settle my poor fortunes, or rather my being. I am much fallen in love with a private life; but yet I shall so spend my time, as shall not decay my abilities for use.

God preserve and prosper your lordship.

[Sept. 5, 1621.]

TO THE PRINCE.

May it please your highness,

I cannot too oft acknowledge your highness's favour in my troubles; but acknowledgment now is but begging of new favour. Yet even that is not inconvenient; for thanksgiving and petition go well together, even to God himself. My humble suit to your highness, that I may be thought on for means to subsist; and to that purpose, that your highness will join with my noble friend to the king. That done, I shall ever be ready, either at God's call, or his Majesty's, and as happy, to my thinking, as a man can be, that must leave to serve such a king.

God preserve and prosper your highness.

On the back of the draughts of the three preceding letters were written the following memoranda.

Bishops Winchester,* Durham,† London.‡

Lord Duke,§ Lord Hunsdon.

Lord chamberlain,‖ to thank him for his kind remembrance by you; and though in this private fortune I shall have use of few friends, yet I cannot but acknowledge the moderation and affection his lordship showed in my business, and desire, that of those few his lordship will still be one for my comfort, in whatsoever may cross his way, for the furtherance of my private life and fortune.

Mr. John Murray. If there be any thing that may concern me, that is fit for him to speak, and me to know, that I may receive it by you.

Mr. Maxwell. That I am sorry, that so soon as I came to know him, and to be beholden to him, I wanted power to be of use to him.

Lord of Kelly; and to acquaint him with that part touching the confinement.

* Dr. Andrews. † Dr. Richard Neile.
‡ Dr. George Mountain. § Lenox.

TO THE KING.

It may please your Majesty,

Now that your Majesty hath passed the recreation of your progress, there is nevertheless one kind of recreation, which, I know, remaineth with your Majesty all the year, which is to do good, and to exercise your clemency and beneficence. I shall never measure my poor service by the merit, which perhaps is small, but by the acceptation, which hath been always favourably great. I have served your Majesty now seventeen years; and since my first service, which was in the commission of the union, I received from your Majesty never chiding or rebuke, but always sweetness and thanks. Neither was I, in these seventeen years, ever chargeable to your Majesty, but got my means in an honourable sweat of my labour, save that of late your Majesty was graciously pleased to bestow upon me the pension of twelve hundred pounds for a few years. For in that other poor prop of my estate, which is the farming of the petty writs, I improved your Majesty's revenue by four hundred pounds the year. And likewise, when I received the seal, I left both the attorney's place, which was a gainful place, and the clerkship of the star-chamber, which was queen Elizabeth's favour, and was worth twelve hundred pounds by the year, which would have been a good *commendam*. The honours which your Majesty hath done me, have put me above the means to get my living; and the misery I am fallen into hath put me below the means to subsist as I am. I hope my courses shall be such, for this little end of my thread which remaineth, as your Majesty, in doing me good, may do good to many, both that live now, and shall be born hereafter. I have been the keeper of your seal, and now am your beadsman. Let your own royal heart, and my noble friend, speak the rest.

God preserve and prosper your Majesty.

Your Majesty's faithful poor servant and beadsman,

FR. ST. ALBAN.

September 5, 1621.

Cardinal Wolsey said, that if he had pleased God as he pleased the king, he had not been ruined. My conscience saith no such thing; for I know not but in serving you I have served God in one. But it may be, if I had pleased God, as I had pleased you, it would have been better with me.

TO THE KING.

It may please your most excellent Majesty,

I do very humbly thank your Majesty for your gracious remission of my fine. I can now, I thank God and you, die, and make a will.

I desire to do, for the little time God shall send me life, like the merchants of London, which, when they give over trade, lay out their money upon land.

‖ William, earl of Pembroke.

So, being freed from civil business, I lay forth my poor talent upon those things which may be perpetual, still having relation to do you honour with those powers I have left.

I have therefore chosen to write the reign of king Henry the VIIth, who was in a sort your forerunner, and whose spirit, as well as his blood, is doubled upon your Majesty.

I durst not have presumed to entreat your Majesty to look over the book, and correct it, or at least to signify what you would have amended. But since you are pleased to send for the book, I will hope for it.

[God knoweth, whether ever I shall see you again; but I will pray for you to the last gasp, resting *]

The same, your true beadsman,

FR. ST. ALBAN.

October 8, 1621.

Grant of Pardon to the Viscount St. Alban, under the privy seal.†

A SPECIAL pardon granted unto Francis, Viscount St. Alban, for all felonies done and committed against the common laws and statutes of this realm; and for all offences of præmunire; and for all misprisions, riots, &c. with the restitution of all his lands and goods forfeited by reason of any of the premises; except out of the same pardon all treasons, murders, rapes, incest; and except also all fines, imprisonments, penalties, and forfeitures, adjudged against the said Viscount St. Alban, by a sentence lately made in the parliament. Teste Rege apud Westm. 17 die Octob. anno Regni sui 19.

Per lettre de privato sigillo.

DR. WILLIAMS, BISHOP OF LINCOLN ELECT, AND LORD KEEPER OF THE GREAT SEAL, TO THE VISCOUNT ST. ALBAN.

MY VERY GOOD LORD,

HAVING perused a privy seal, containing a pardon for your lordship, and thought seriously thereupon, I find, that the passing of the same, the assembly in parliament so near approaching,‡ cannot but be much prejudicial to the service of the king, to the honour of my lord of Buckingham, to that commiseration which otherwise would be had of your lordship's present estate, and especially to my judgment and fidelity. I have ever affectionately loved your lordship's many and most excellent good parts and endowments; nor had ever cause to disaffect your lordship's person. So as no respect in the world, beside the former considerations, could have drawn me to add the least affliction, or discontentment, unto your lordship's present fortune. May it therefore please your lordship to suspend the passing of this pardon, until the next assembly be over and dissolved; and I will be then as ready to seal it as your lordship to accept of it; and, in the mean time, undertake, that the king and my lord admiral shall interpret this short delay as a service and respect issuing wholly from your lordship; and rest, in all other offices whatsoever,

Your lordship's faithful servant,

JO. LINCOLN, ELECT. CUSTOS SIGILLI.

Westminster-College, October 18, 1621.

To the right honourable his very good lord, the lord viscount St. Alban.

TO THE LORD KEEPER.

MY VERY GOOD LORD,

I KNOW the reasons must appear to your lordship many and weighty, which should move you to stop the king's grace, or to dissuade it; and somewhat the more in respect of my person, being, I hope, no unfit subject for noble dealing. The message I received by Mr. Meautys did import inconvenience, in the form of the pardon; your lordship's last letter, in the time: for, as for the matter, it lay so fair for his Majesty's and my lord of Buckingham's own knowledge, as I conceive your lordship doth not aim at that. My affliction hath made me understand myself better, and not worse; yet loving advice, I know, helps well. Therefore I sent Mr. Meautys to your lordship, that I might reap so much fruit of your lordship's professed good affection, as to know in some more particular fashion, what it is that your lordship doubteth, or disliketh,§ that I may the better endeavour your satisfaction, or acquiescence, if there be cause. So I rest

Your lordship's to do you service,

FR. ST. ALBAN.

October 18, 1621.

Petition of the Lord Viscount St. Alban, intended for the House of Lords.

MY RIGHT HONOURABLE VERY GOOD LORDS,

IN all humbleness, acknowledging your lordships' justice, I do now in like manner crave and implore your grace and compassion. I am old, weak, ruined, in want, a very subject of pity. My only suit to your lordships is, to show me your noble favour towards the release of my confinement, so every confinement is, and to me, I protest, worse than the Tower.‖ There I could have had company, phy-

* This passage has a line drawn over it.

† Cotton Library, Titus Book VII.

‡ It met November 24, 1621; and was dissolved February 8, 1621-2.

§ The lord keeper, in a letter to the marquis of Buckingham, dated October 27, 1621, printed in the *Cabala*, p. 60. Edit. London, 1654, gives his reasons, why he hesitated to seal that pardon.

‖ He had been committed to the Tower, in May, 1621, and discharged after two days' confinement there, according to Camden, *Annales Regis Jac. I.* p. 71. There is a letter of his lordship to the marquis of Buckingham, dated from the

sicians, conference with my creditors and friends about my debts, and the necessities of my estate, helps for my studies and the writings I have in hand. Here I live upon the sword-point of a sharp air, endangered if I go abroad, dulled if I stay within, solitary and comfortless without company, banished from all opportunities to treat with any to do myself good, and to help out any wrecks; and that, which is one of my greatest griefs, my wife, that hath been no partaker of my offending, must be partaker of this misery of my restraint.

May it please your lordships, therefore, since there is a time for justice, and a time for mercy, to think with compassion upon that which I have already suffered, which is not little; and to recommend this my humble, and as I hope, modest suit to his most excellent Majesty, the fountain of grace, of whose mercy, for so much as concerns himself merely, I have already tasted, and likewise of his favour of this very kind, by some small temporary dispensations.

Herein your lordships shall do a work of charity and nobility: you shall do me good; you shall do my creditors good; and, it may be, you shall do posterity good, if out of the carcass of dead and rotten greatness, as out of Samson's lion, there may be honey gathered for the use of future times.

God bless your persons and counsels.

Your lordships' supplicant and servant,

FR. ST. ALBAN.

Indorsed,

Copy of the petition intended for the house of parliament.

TO JOHN LORD DIGBY.*

My very good lord,

Receiving, by Mr. Johnson, your loving salutations, it made me call to mind many of your lordship's tokens, yea and pledges, of good and hearty affection in both my fortunes; for which I shall be ever yours. I pray, my lord, if occasion serve, give me your good word to the king, for the release of my confinement, which is to me a very strait kind of imprisonment. I am no Jesuit, nor no leper, but one that served his Majesty these sixteen years, even from the commission of the union till this last parliament, and ever had many thanks of his Majesty, and was never chidden. This his Majesty, I know, will remember, at one time or other; for I am his man still.

God keep your lordship.

Your lordship's most affectionate to do you service,

FR. ST. ALBAN.

Gorhambury, this last of December, 1621.

Tower, May 31, 1621, desiring his lordship to procure his discharge that day.

* Created so in November, 1618, and in September, 1622, earl of Bristol.

† Harl. MSS. Vol. 7000.

TO THE LORD VISCOUNT ST. ALBAN.†

My honourable lord,

I have received your lordship's letter, and have been long thinking upon it, and the longer, the less able to make answer unto it. Therefore if your lordship will be pleased to send any understanding man unto me, to whom I may, in discourse, open myself, I will, by that means, so discover my heart with all freedom, which were too long to do by letter, especially in this time of parliament business, that your lordship shall receive satisfaction. In the mean time I rest

Your lordship's faithful servant,

Royston, Dec. 16 [1621]. G. BUCKINGHAM.

TO THE MARQUIS OF BUCKINGHAM.

My very good lord,

The reason why I was so desirous to have had conference with your lordship at London, was indeed to save you the trouble of writing; I mean, the reason in the second place; for the chief was to see your lordship. But since you are pleased to give me the liberty to send to your lordship one, to whom you will deliver your mind, I take that in so good part, as I think myself tied the more to use that liberty modestly. Wherefore, if your lordship will vouchsafe to send me one of your own, except I might have leave to come to London, either Mr. Packer, my ancient friend, or Mr. Aylesbury, ‡ of whose good affection towards me I have heard report; to me it shall be indifferent. But if your lordship will have one of my nomination, if I might presume so far, I would name before all others, my lord of Falkland. But because perhaps it may cost him a journey, which I may not in good manners desire, I have thought of Sir Edward Sackville, Sir Robert Mansel, my brother, Mr. Solicitor-general,§ who, though he be almost a stranger to me, yet, as my case now is, I had rather employ a man of good nature than a friend, and Sir Arthur Ingram, notwithstanding he be great with my lord treasurer. Of these, if your lordship will be pleased to prick one, I hope well I shall entreat him to attend your lordship, and to be sorry never a whit of the employment. Your lordship may take your own time to signify your will, in regard of the present business of parliament. But my time was confined, by due respect, to write a present answer to a letter, which I construed to be a kind letter, and such as giveth me yet hope to show myself to your lordship,

Your lordship's most obliged friend, and faithful servant,

FR. ST. ALBAN.

Indorsed,

To the lord of Buckingham, in answer to his of the 16th of December.

‡ Thomas Aylesbury, Esq. secretary to the Marquis of Buckingham as lord high admiral. He was created a baronet in 1627. Lord chancellor Clarendon married his daughter Frances.

§ Sir Robert Heath, made solicitor in January, 1620-1.

A Memorial of Conference, when the Lord Viscount St. Alban *expected the Marquis of* Buckingham.

My lord marquis,

Inducement.] Afflictions are truly called trials; trials of a man's self, and trials of friends. For the first, I am not guilty to myself of any unworthiness, except perhaps too much softness in the beginning of my troubles. But since, I praise God, I have not lived like a drone, nor like a mal-content, nor like a man confused. But though the world hath taken her talent from me, yet God's talent I put to use.

For trial of friends, he cannot have many friends, that hath chosen to rely upon one. So that is in a small room, ending in yourself. My suit therefore to you is, that you would now, upon this vouchsafed conference, open yourself to me, whether I stand in your favour and affection, as I have done; and if there be an alteration, what is the cause; and, if none, what effects I may expect for the future of your friendship and favour, my state being not unknown to you.

Reasons of doubting.] The reasons, why I should doubt of your lordship's coolness towards me, or falling from me, are either out of judgment and discourse, or out of experience, and somewhat that I find. My judgment telleth, that when a man is out of sight and out of use, it is a nobleness somewhat above this age to continue a constant friend: that some, that are thought to have your ear, or more, love me not, and may either disvalue me, or distaste your lordship with me. Besides, your lordship hath now so many, either new-purchased friends, or reconciled enemies, as there is scarce room for an old friend specially set aside. And lastly, I may doubt, that that, for which I was fittest, which was to carry things *suavibus modis*, and not to bristle, or undertake, or give venturous counsels, is out of fashion and request.

As for that, I find your lordship knoweth, as well as I, what promises you made me, and iterated them back by message, and from your mouth, consisting of three things: the pardon of the whole sentence; some help for my debts; and an annual pension, which your lordship did set at 2000*l.* as obtained, and 3000*l.* in hope. Of these being promises undesired, as well as favours undeserved, there is effected only the remission of the fine, and the pardon now stayed. From me I know there hath proceeded nothing, that may cause the change. These I lay before you, desiring to know what I may hope for; for hopes are racks, and your lordship, that would not condemn me to the Tower, I know will not condemn me to the rack.

The pardon stayed.] I have, though it be a thing trivial, and that at a coronation one might have it for five marks, and after a parliament for nothing, yet have great reason to desire it, specially being now stirred: chiefly, first, because I have been so sifted; and now it is time there were an end. Secondly, because I mean to live a retired life; and so cannot be at hand to shake off any clamour.

For any offence the parliament should take, it is rather honour, that in a thing wherein the king is absolute, yet he will not interpose in that, which the parliament hath handled; and the king hath already restored judicature, after a long intermission: but for matter of his grace, his Majesty shall have reason to keep it entire.

I do not think any, except a Turk or Tartar, would wish to have another chop out of me. But the best is, it will be found there is a time for envy, and a time for pity; and cold fragments will not serve, if the stomach be on edge. For me, if they judge by that which is past, they judge of the weather of this year by an almanack of the old year; they rather repent of that they have done, and think they have but served the turns of a few.

THOMAS MEAUTYS, ESQ.* TO THE LORD VISCOUNT ST. ALBAN.

May it please your lordship,

As soon as I came to London, I repaired to Sir Edward Sackville,† whom I find very zealous, as I told your lordship. I left him to do you service, in any particular you shall command him, to my lord marquis, though it were with some adventure; and withal he imparted to me what advice he had given to my lady this afternoon, upon his visiting of her at York-house, when Mr. Packer also, as it fell out, was come, at the same time, to see my lady, and seemed to concur with Sir Edward Sackville in the same ways; which were, for my lady to become a suitor to my lady Buckingham,‡ and my lady marchioness,§ to work my lord marquis for obtaining of the king some bounty towards your lordship; and in particular, that of the thousand pounds for the small writs. If I may speak my opinion to your lordship, it is not amiss to begin any way, or with any particular, though but small game at first, only to set a rusty clock a going, and then haply it may go right for a time, enough to bring on the rest of your lordship's requests. Yet because your lordship directed me to wish my lady, from you, by no means, to act any thing, but only to open her mind, in discourse unto friends, until she should receive your farther direction; it became not me to be too forward in putting it on too fast with Sir Edward; and my lady was pleased to tell me since, that she hath written to your lordship at large.

I inquired, even now, of Benbow, whether the proclamation for dissolving the parliament were com-

* He had been secretary to the lord viscount St. Alban, while his lordship had the great seal, and was afterwards clerk of the council, and knighted. He succeeded his patron in the manor of Gorhambury, which, after the death of Sir Thomas, came to his cousin and heir, Sir Thomas Meautys, who married Anne, daughter of Sir Nathaniel Bacon of Culford-Hall, in Suffolk, knight; which lady married a second husband, Sir Harbottle Grimstone, baronet, and master of the rolls; who purchased the reversion of Gorhambury, from Sir Hercules Meautys, nephew of the second Sir Thomas.

† Afterwards earl of Dorset, well known for his duel in 1613, with the lord Kinloss, in which the latter was killed.

‡ Mary, countess of Buckingham, mother of the marquis.

§ Catharine, marchioness of Buckingham, wife of the marquis, and only daughter and heir of Francis, earl of Rutland.

ing forth. He tells me he knows no more certainty of it than that Mr. Secretary commanded him yesterday to be ready for despatching of the writs, when he should be called for; but since then he hears it sticks, and endures some qualms; but they speak it still loud at court, that the king is resolved of it.

Benbow tells me likewise, that he hath attended, these two days, upon a committee of the lords, with the book of the commission of peace; and that their work is to empty the commission in some counties by the score, and many of them parliament-men: which course sure helps to ring the passing-bell to the parliament.

Mr. Borough * tells me, he is at this present fain to attend some service for the king; but about Saturday he hopes to be at liberty to wait upon your lordship. I humbly rest

Your lordship's for ever to honour and serve,

T. MEAUTYS.

January 3, 1621.

To the Right Honourable my most honoured Lord, the Lord Viscount St. Alban.

TO THE LORD VISCOUNT ST. ALBAN.

MAY IT PLEASE YOUR LORDSHIP,

THIS afternoon my lady found access to my lord marquis, procured for her by my lord of Montgomery† and Sir Edward Sackville, who seemed to contend which of them should show most patience in waiting, which they did a whole afternoon, the opportunity to bring my lord to his chamber, where my lady attended him. But when he was come, she found time enough to speak at large: and though my lord spake so loud, as that what passed was no secret to me and some others, that were within hearing; yet, because my lady told me she purposeth to write to your lordship the whole passage, it becomes not me to anticipate, by these, any part of her ladyship's relation.

I send your lordship herewith the proclamation for dissolving the parliament; wherein there is nothing forgotten, that we ‡ have done amiss: but for most of those things, that we have well done, we must be fain, I see, to commend ourselves.

I delivered your lordship's to my lord of Montgomery, and Mr. Matthew, who was even then come to York-house to visit my lady, when I received the letter; and, as soon as he had read it, he said, that he had rather your lordship had sent him a challenge; and that it had been easier to answer, than so noble and kind a letter. He intends to see your lordship some time this week; and so doth Sir Edward Sackville, who is forward to make my lady a way by the prince, if your lordship advise it.

There are packets newly come out of Spain: and the king, they say, seems well pleased with the contents; wherein there is an absolute promise, and undertaking, for restitution of the Palatinate; the dispensation returned already from the pope, and the match hastened on their parts. My lord Digby goes shortly; and Mr. Matthew tells me, he means, before his going, to write by him to your lordship.

The king goes not till Wednesday, and the prince certainly goes with him. My lord marquis, in person, christens my lord of Falkland's child tomorrow, at his house by Watford.

Mr. Murray § tells me, the king hath given your book ‖ to my lord Brooke, ¶ and enjoined him to read it, recommending it much to him: and then my lord Brooke is to return it to your lordship; and so it may go to the press, when your lordship pleases, with such amendments as the king hath made, which I have seen, and are very few, and those rather words, as *epidemic*, and *mild* instead of *debonnaire*, *&c.* Only that of persons attainted, enabled to serve in parliament by a bare reversal of their attainder, the king by all means will have left out. I met with my lord Brooke, and told him, that Mr. Murray had directed me to wait upon him for the book, when he had done with it. He desired to be spared this week, as being to him a week of much business, and the next week I should have it: and he ended in a compliment, that care should be taken, by all means, for good ink and paper to print it in; for that the book deserveth it.

I beg leave to kiss your lordship's hands.

Your lordship's in all humbleness to honour and serve,

T. MEAUTYS.

January 7, 1621-2.

This proclamation is not yet sealed; and therefore your lordship may please, as yet, to keep it in your own hands.

TO THE LORD VISCOUNT ST. ALBAN.

MY MOST HONOURED LORD,

I MET, even now, with a piece of news so unexpected, and yet so certainly true, as that, howsoever I had much ado, at first, to desire the relater to speak probably; yet now I dare send it your lordship upon my credit. It is my lord of Somerset's and his lady's coming out of the Tower, on Saturday last,** fetched forth by my lord of Falkland, and without the usual degrees of confinement, at first to some one place,†† but absolute and free to go where

* John Borough, educated in common law at Gray's-Inn, keeper of the Records of the Tower of London, secretary to the earl marshal, in 1623 made Norroy; in July the year following knighted, and on the 23d of December, the same year, made garter king at arms in the place of Sir William Segar. He died October 21, 1643.

† Philip, afterwards earl of Pembroke.

‡ Mr. Meautys was member, in this parliament, for the town of Cambridge.

§ Either John Murray of the king's bed-chamber, mentioned above in the letter of 21 January, 1614, or Thomas Murray, tutor and secretary to the prince, made provost of Eton-College, in the room of Sir Henry Saville, who died February 19, 1621-2. Mr. Murray died likewise, April 1, 1623.

‖ "The History of the Reign of King Henry the Seventh."

¶ Fulk Grevile.

** January 6, 1621-2. Camdeni Annales Regis Jacobi I p. 77.

†† Camden, *ubi supra*, says, "that the earl was ordered to

they please. I know not how peradventure this might occasion you to cast your thoughts, touching yourself, into some new mould, though not in the main, yet in something on the bye.

I beg leave to kiss your lordship's hands.

Your lordship's in all humbleness for ever to honour and serve you.

T. MEAUTYS.

LODOWIC STEWART, DUKE OF LENOX, TO THE LORD VISCOUNT ST. ALBAN.

My lord,

It is not unknown to your lordship, that in respect I am now a married man, I have more reason than before to think of providing me some house in London, whereof I am yet destitute; and for that purpose, I have resolved to entreat your lordship, that I may deal with you for York-house; wherein I will not offer any conditions to your loss. And, in respect I have understood, that the consideration of your lady's wanting a house hath bred some difficulty in your lordship to part with it, I will for that make offer unto your lordship and your lady, to use the house in Cannon-row, late the earl of Hertford's, being a very commodious and capable house, wherein I and my wife have absolute power; and whereof your lordship shall have as long time as you can challenge or desire of York-house. In this I do freelier deal with your lordship, in respect I know you are well assured of my well-wishes to you in general; and that in this particular, though I have not been without thoughts of this house before your lordship had it, yet I was willing to give way to your lordship's more pressing use thereof then. And as I do not doubt of your lordship's endeavour to gratify me in this; so I shall esteem it as an extraordinary courtesy, which I will study to requite by all means.

So, with my best wishes to your lordship, I rest

Your lordship's most loving friend,

LENOX.

In respect my lord of Buckingham was once desirous to have had this house, I would not deal for it till now, that he is otherwise provided.

Whitehall, the 29th of January, 1621.

To the right honourable my very good lord, my lord viscount St. Alban.

ANSWER OF THE LORD VISCOUNT ST. ALBAN.

My very good lord,

I am sorry to deny your Grace any thing; but in this you will pardon me. York-house is the house, wherein my father died, and wherein I first breathed; and there will I yield my last breath, if so please God, and the king will give me leave; though I be now by fortune, as the old proverb is, like a bear in a monk's hood. At least no money, no value, shall make me part with it. Besides, as I never denied it to my lord marquis, so yet the difficulty I made was so like a denial, as I owe unto my great love and respect to his lordship a denial to all my other friends; among whom, in a very near place next his lordship, I ever account of your Grace. So not doubting, that you will continue me in your former love and good affection, I rest

Your Grace's, to do you humble service affectionate, &c.

TO THE MARQUIS OF BUCKINGHAM.

My very good lord,

As my hopes, since my misfortunes, have proceeded of your lordship's mere motion, without any petition of mine; so I leave the times and the ways to the same good mind of yours. True it is, a small matter for my debts would do me more good now, than double a twelvemonth hence. I have lost six thousand pounds by year, besides caps and courtesies. But now a very moderate proportion would suffice: for still I bear a little of the mind of a commissioner of the treasury, not to be over chargeable to his Majesty; and two things I may assure your lordship of; the one, that I shall lead such a course of life, as whatsoever the king doth for me, shall rather sort to his Majesty's and your lordship's honour, than to envy; the other, that whatsoever men talk, I can play the good husband, and the king's bounty shall not be lost. If your lordship think good, the prince should come in to help; I know his highness wisheth me well; if you will let me know when, and how, he may be used. But the king is the fountain, who, I know, is good.

God prosper you.

Your lordship's most bounden and faithful

FR. ST. ALBAN.

Gorhambury, January 30, 1621.

TO THE MARQUIS OF BUCKINGHAM.

My very good lord,

Your lordship dealeth honourably with me in giving me notice, that your lordship is provided of a house,* whereby you discontinue the treaty your lordship had with me for York-house, although I shall make no use of this notice, as to deal with any other. For I was ever resolved your lordship should have had it, or no man. But your lordship doth yet more nobly, in assuring me, you never

confine himself to the lord viscount Wallingford's house or neighbourhood."

* Mr. Chamberlain, in a MS. letter to Sir Dudley Carleton, dated at London, January 19, 1621-2, mentions, that the marquis of Buckingham had contracted with the lord and lady Wallingford, for *their house near Whitehall*, for some money

meant it with any the least inconvenience to myself. May it please your lordship likewise to be assured from me, that I ever desired you should have it, and do still continue of the same mind.

I humbly pray your lordship, to move his Majesty to take some commiseration of my long imprisonment. When I was in the Tower, I was nearer help of physic; I could parley with my creditors; I could deal with friends about my business; I could have helps at hand for my writings and studies, wherein I spend my time; all which here fail me. Good my lord, deliver me out of this; me who am his Majesty's devont beadsman, and

Your lordship's most obliged friend and faithful servant,

FR. ST. ALBAN.

Gorhambury, this 3rd of Feb. 1621.

JOHN SELDEN, ESQ. TO THE LORD VISCOUNT ST. ALBAN.

My most honourable lord,

At your last going to Gorhambury, you were pleased to have speech with me about some passages of parliament; touching which, I conceived, by your lordship, that I should have had farther direction by a gentleman, to whom you committed some care and consideration of your lordship's intentions therein. I can only give this account of it, that never was any man more willing or ready to do your lordship service, than myself; and in that you then spake of, I had been most forward to have done whatsoever I had been, by farther direction, used in. But I understood, that your lordship's pleasure that way was changed. Since, my lord, I was advised with, touching the judgments given in the late parliament. For them, if it please your lordship to hear my weak judgment expressed freely to you, I conceive thus. First, that admitting it were no session, but only a *convention*, as the proclamation calls it; yet the judgments given in the upper house, if no other reason be against them, are good; for they are given by the lords, or the upper house, by virtue of that ordinary authority, which they have as the supreme court of judicature; which is easily to be conceived, without any relation to the matter of session, which consists only in the passing of acts, or not passing them, with the royal assent. And though no session of the three states together be without such acts so passed; yet every part of the parliament severally did its own acts legally enough to continue, as the acts of other courts of justice are done. And why should any doubts be, but that a judgment out of the king's bench, or exchequer-chamber, reversed there, had been good, although no session? For there was truly a parliament, truly an upper house, which exercised by itself this power of judicature, although no session. Yet withal, my lord, I doubt, it will fall out, upon fuller consideration, to be thought a session also. Were it not for the proclamation, I should be clearly of that mind; neither doth the clause, in the act of subsidy, hinder it. For that only prevented the determination of the session at that instant; but did not prevent the being of a session, whensoever the parliament should be dissolved. But because that point was resolved in the proclamation, and also in the commission of dissolution on the 8th of February, I will rest satisfied.

But there are also examples of former times, that may direct us in that point of the judgment, in regard there is store of judgments of parliament, especially under Edward I. and Edward II. in such conventions, as never had, for aught appears, any act passed in them.

Next, my lord, I conceive thus; that by reason there is no record of those judgments, it may be justly thought, that they are of no force. For thus it stands. The lower house exhibited the declarations in paper; and the lords, receiving them, proceeded to judgment verbally; and the notes of their judgments are taken by the clerk, in the journal only; which, as I think, is no record of itself, neither was it ever used as one. Now the record, that in former times was of the judgments and proceedings there, was in this form. The accusation was exhibited in parchment; and being so received, and indorsed, was the first record; and that remained filed among the bills of parliament, it being of itself as the bills in the king's bench. Then out of this there was a formal judgment, with the accusation entered into that roll, or second record, which the clerk transcribes by ancient use, and sends into the chancery.

But in this case there are none of these: neither doth any thing seem to help to make a record of it, than only this, that the clerk may enter it, now after the parliament; which, I doubt, he cannot. Because, although in other courts the clerks enter all, and make their records after the term; yet in this parliamentary proceeding it falls out, that the court being dissolved, the clerk cannot be said to have such a relation to the parliament, which is not then at all in being, as the prothonotaries of the courts of Westminster have to their courts, which stand only adjourned. Besides, there cannot be an example found, by which it may appear, that ever any record of the first kind, where the transcript is into the chancery, was made in parliament; but only sitting the house, and in their view. But this I offer to your lordship's farther consideration, desiring your favourable censure of my fancy herein; which, with whatsoever ability I may pretend to, shall ever be desirous to serve you, to whom I shall perpetually own myself

Your lordship's most humble servant,

J. SELDEN.

From the Temple, February XIV. CIↃDCXXI.

My lord,

If your lordship have done with that *Mascardus de Interpretatione Statutorum*,* I shall be glad that

* Alderani Mascardi communes conclusiones utriusque juris ad generalem statutorum interpretationem accommodatæ. Printed at Ferrara, 1608.

you would give order that I might use it. And for that of 12 Hen. 7. touching the grand council in the manuscript, I have since seen a privy seal of the time of Henry 7. (without a year) directed to borrow for the king; and in it there is a recital of a grand council, which thought, that such a sum was fit to be levied; whereof the lords gave 40,000*l.* and the rest was to be gotten by privy seal upon loan. Doubtless, my lord, this interprets that of the manuscript story.

On the back of this letter are the following notes by the lord viscount St. Alban.

"The case of the judgment in parliament, upon a writ of error put by Just. Hu.*

"The case of no judgment entered into the court of augmentations, or survey of first fruits; which are dissolved, where there may be an entry after, out of a paper-book.

"*Mem.* All the acts of my proceeding were after the royal assent to the subsidy."

TO MR. TOBIE MATTHEW.†

Good Mr. Matthew,

In this solitude of friends, which is the base court‡ of adversity, where almost nobody will be seen stirring, I have often remembered a saying of my lord ambassador of Spain,§ "Amor sin fin no tiene fin."‖ This moveth me to make choice of his excellent lordship for his noble succours towards not the aspiring but the respiring of my fortunes.

I, that am a man of books, have observed his lordship to have the magnanimity of his own nation, and the cordiality of ours; and, by this time, I think he hath the wit of both. Sure I am, that for myself I have found him, in both my fortunes, to esteem me so much above value, and to love me so much above possibility of deserving, or obliging on my part, as if he were a friend reserved for such a time as this. I have known his lordship likewise, while I stood in a stand where I might look about, a most faithful and respective friend to my lord marquis; who, next the king and the prince, was my raiser, and must be, he or none, I do not say my restorer, but my reliever.

I have, as I made you acquainted at your being with me, a purpose to present my lord marquis with an offer of my house and lands here at Gorhambury; a thing, which, as it is the best means I have now left to demonstrate my affection to his lordship, so I hope it will be acceptable to him. This proposition I desire to put into no other hand but my lord ambassador's, as judging his hand to be the safest, the most honourable, and the most effectual for my good, if my lord will be pleased to deal in it. And when I had thus resolved, I never sought, nor thought of any mean but yourself, being so private, faithful, and discreet a friend to us both. I desire you therefore, good Mr. Matthew, to acquaint my lord ambassador with this overture; and both to use yourself, and desire at his lordship's hands, secrecy therein; and withal to let his lordship know, that in this business, whatsoever in particular you shall treat with him, I shall not fail, in all points, to make good and perform.

Commend my humble service to his lordship. I ever rest

Your most affectionate and assured friend,

FR. ST. ALBAN.

Gorhambury, Feb. 28, 1621.

TO THE MARQUIS OF BUCKINGHAM.

My very good lord,

Though I have returned answer to your lordship's last letter by the same way, by which I received it; yet I humbly pray your lordship to give me leave to add these few lines.

My lord, as God above is witness, that I ever have loved and honoured your lordship, as much, I think, as any son of Adam can love or honour any subject, and continue in as hearty and strong wishes of felicity to be heaped and fixed upon you, as ever; so, as low as I am, I had rather sojourn in a college in Cambridge, than recover a good fortune by any other but yourself. Marry, to recover yourself to me, if I have you not, or to ease your lordship in any thing, wherein your lordship would not so fully appear, or to be made participant of your favours in your own way, I would use any man, that were your lordship's friend; and therefore, good my lord, in that let me not be mistaken. Secondly, if in any of my former letters I have given your lordship any distaste by the style of them, or any particular passages, I humbly pray your lordship's benign construction and pardon. For, I confess, it is my fault, though it be some happiness to me withal, that I do most times forget my adversity. But I shall never forget to be

Your lordship's most obliged friend and faithful servant,

FR. ST. ALBAN.

March 5, 1621.

Fragments of several kinds.

My meaning was, if my lord should obtain for me, by his noble mediation, in consideration of my services past, and other respects, to do that, for my relief, which I was suitor for by my lord's noble mediation, and whereof I was in good hope, to have presented my lord with Gorhambury in possession, out of gratitude and love, for nothing.

* Hutton.

† This, and the following letter of March 5, 1621-2, to the marquis of Buckingham, are inserted from the originals, much more complete and exact, than the copies of them printed in his works.

‡ *Basse cour.*

§ Count Gondomar, who returned to Spain about March 1621-2.

‖ "Love without ends hath no end."

My meaning was, if my lord should prevail for me in my suit to the king for reward of services, and relief of my poor estate, to have presented him with Gorhambury, out of gratitude and love, for nothing, exeept some satisfaction to my wife, for her interest.

If my lord like better to proceed by way of bargain, so I find that I may but subsist, I will deserve of his honour, and express my love in a friendly pennyworth.

The third point to be added:

This as his work.] The more for kissing the king's hands presently.

The reasons, stalling my debts.

Willingness in my friends to help me.

None will be so bold as to oppress me.

The pretence, that the king would give me direction, in what nature of writings to expend my time.

The letter to expect yet, and the manner of the delivery.

That my lord do not impute it, if he hear I deal with others; for he shall better perceive the value, and I shall make it good to his lordship, being my state requireth speed.

TO THE LORD VISCOUNT ST. ALBAN.

May it please your lordship,

Remembering, that the letter your lordship put yesterday into my hand was locked up under two or three seals, it ran in my head, that it might be business of importance and require haste; and not finding Mr. Matthew in town, nor any certainty of his return till Monday or Tuesday, I thought it became me to let your lordship know it, that so I might receive your lordship's pleasure, if need were, to send it by as safe a hand as if it had three seals more.

My lord, I saw Sir Arthur Ingram, who let fall somewhat as if he could have been contented to have received a letter by me from your lordship, with something in it like an acknowledgment to my lord treasurer,* that by his means you had received a kind letter from my lord marquis. But, in the close, he came about, and fell rather to excuse what was left out of the letter, than to please himself much with what was in it. Only indeed he looked upon me, as if he did a little distrust my good meaning in it. But that is all one to me; for I have been used to it, of late, from others, as well as from him. But persons apt to be suspicious may well be borne with; for certainly they trouble themselves most, and lose most by it. For of such it is a hard question, whether those be fewest whom they trust or those who trust them. But for him, and some others, I will end in a wish, that as to your lordship's service, they might prove but half so much honester, as they think themselves wiser, than other men.

* Lionel, lord Cranfield, made lord treasurer in Oct. 1621.

It is doubtful, whether the king will come to-morrow or not; for they say he is full of pain in his feet.

My lord marquis came late to town last night, and goeth back this evening: and Sir Edward Sackville watcheth an opportunity to speak with him before he go.

However, he wisheth that your lordship would lose no time in returning an answer, made all of sweetmeats, to my lord marquis's letter, which, he is confident, will be both tasted and digested by him. And Sir Edward wisheth, that the other letter to my lord marquis, for presenting your discourse of laws to his Majesty, might follow the first. I humbly rest

Your lordship's for ever truly to honour and serve you,

THO. MEAUTYS.

Martii 3, 1621.

TO THE LORD VISCOUNT ST. ALBAN.

May it please your lordship,

I had not failed to appear this night upon your lordship's summons, but that my stay till to-morrow I knew would mend my welcome, by bringing Mr. Matthew, who means to dine with your lordship only, and so to rebound back to London, by reason my lord Digby's journey calls for him on the sudden. Neither yet was this all that stayed me; for I hear somewhat, that I like reasonably well; and yet I hope it will mend too; which is, that my lord marquis hath sent you a message by my lord of Falkland, which is a far better hand than my lord treasurer's, that gives you leave to come presently to Highgate: and Sir Edward Sackville, speaking for the other five miles, my lord commended his care and zeal for your lordship, but silenced him thus: "Let my lord be ruled by me: it will be never the worse for him." But my lord marquis saying farther to him, "Sir Edward, however you play a good friend's part for my lord St. Alban, yet I must tell you, I have not been well used by him." And Sir Edward desiring of him to open himself in whatsoever he might take offence at; and withal, taking upon him to have known so much from time to time, of your lordship's heart, and endeavours towards his lordship, as that he doubted not but he was able to clear any mist, that had been cast before his lordship's eyes by your enemies; my lord marquis, by this time being ready to go to the Spanish ambassador's to dinner, broke off with Sir Edward, and told him that after dinner he would be back at Wallingford-house, and then he would tell Sir Edward more of his mind; with whom I have had newly conference at large, and traced out to him, as he desired me, some particulars of that, which they call a treaty with my lord treasurer about York-house, which Sir Edward Sackville knows how to put together, and make a smooth tale of it for your lordship; and this night I shall know all from him,

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and to-morrow by dinner, I shall not fail to attend your lordship: till when, and ever, I rest

Your lordship's in all truth to honour and serve you,

T. MEAUTYS.

Indorsed,

Received March 11.

TO HENRY CARY, LORD VISCOUNT FALKLAND.*

My very good lord,

Your lordship's letter was the best letter I received this good while, except the last kind letter from my lord of Buckingham, which this confirmeth. It is the best accident, one of them, amongst men, when they hap to be obliged to those, whom naturally and personally they love, as I ever did your lordship; in troth not many between my lord marquis and yourself; so that the sparks of my affection shall ever rest quick, under the ashes of my fortune, to do you service; and wishing to your fortune and family all good.

Your lordship's most affectionate and much obliged, &c.

I pray your lordship to present my humble service and thanks to my lord marquis, to whom, when I have a little paused, I purpose to write; as likewise to his Majesty, for whose health and happiness, as his true beadsman, I most frequently pray.

Indorsed,

March 11, *Copy of my Answer to Lord Falkland.*

TO THE LORD TREASURER.†

My very good lord,

I have received, by my noble friend, my lord viscount Falkland, advertisement, as from my lord marquis, of three things; the one, that, upon his lordship's motion to his Majesty, he is graciously pleased to grant some degree of release of my confinement. The second, that if I shall gratify your lordship, who, my lord understandeth, are desirous to treat with me about my house at London, with the same, his lordship will take it as well, as if it was done to himself. The third, that his Majesty hath referred unto your lordship the consideration of the relief of my poor estate. I have it also from other part, yet by such, as have taken it immediately from my lord marquis, that your lordship hath done me to the king very good offices. My lord, I am much bounden to you: wherefore if you shall be pleased to send Sir Arthur Ingram, who formerly moved me in it for your lordship, to treat farther with me, I shall let your lordship see how affectionately I am desirous to pleasure your lordship after my lord of Buckingham.

So wishing your lordship's weighty affairs, for his Majesty's service, a happy return to his Majesty's contentment, and your honour, I rest

Your lordship's very affectionate to do you service,

FR. ST. ALBAN.

Indorsed,

March 12. *To the Lord Treasurer.*

TO THE LORD TREASURER.

My very good lord,

The honourable correspondence, which your lordship hath been pleased to hold with my noble and constant friend, my lord marquis, in farthering his Majesty's grace towards me, as well concerning my liberty, as the consideration of my poor estate, hath very much obliged me to your lordship, the more by how much the less likelihood there is, that I shall be able to merit it at your lordship's hands. Yet thus much I am glad of, that this course, your lordship holds with me, doth carry this much upon itself, that the world shall see in this, amongst other things, that you have a great and noble heart.

For the particular business of York-house, Sir Arthur Ingram can bear me witness, that I was ready to leave the conditions to your lordship's own making: but since he tells me plainly, that your lordship will by no means have to be so, you will give me leave to refer it to Sir Arthur Ingram, who is so much your lordship's servant, and no less faithful friend to me, and understands values well, to set a price between us.

For the reference his Majesty hath been graciously pleased, at my lord marquis's suit, to make unto your lordship, touching the relief of my poor estate,‡ which my lord of Falkland's letter hath signified, warranting me likewise to address myself to your lordship touching the same; I humbly pray your lordship to give it despatch, my age, health, and fortunes, making time to me therein precious. Wherefore, if your lordship, who knoweth best what the king may best do, have thought of any particular, I would desire to know from your good lordship: otherwise I have fallen myself upon a particular, which I have related to Sir Arthur, and, I hope, will seem modest, for my help to live and subsist. As for somewhat towards the paying off my debts, which are now my chief care, and without charge of the king's coffers, I will not now trouble your lordship; but purposing to be at Chiswick, where I have taken a house, within this sevennight, I hope to wait upon your lordship, and to gather some violets in your garden, and will then impart unto you, if I have thought of any thing of that nature for my good.

So I ever rest, &c.

* Appointed lord deputy of Ireland, September 8, 1622.

† Lionel, Lord Cranfield.

‡ The lord viscount St. Alban, in a letter to the king, from Gorhambury, 20th of March, 1621-2, thanks his Majesty for *referring the consideration of his broken estate to his good lord the lord treasurer.*

THOMAS MEAUTYS, ESQ. TO THE LORD VISCOUNT ST. ALBAN.

MAY IT PLEASE YOUR LORDSHIP,

I HAVE been attending upon my lord marquis's minutes for the signing of the warrant. This day he purposed in earnest to have done it: but it falls out untowardly, for the warrant was drawn, as your lordship remembers, in haste, at Gorhambury, and in as much haste delivered to Sir Edward Sackville, as soon as I alighted from my house, who instantly put it into my lord marquis's hands, so that no copy could possibly be taken of it by me. Now his lordship hath searched much for it, and is yet at a loss, which I knew not till six this evening: and because your lordship drew it with caution, I dare not venture it upon my memory to carry level what your lordship wrote, and therefore despatched away this messenger, that so your lordship, by a fresh post, for this will hardly do it, may send a warrant to your mind, ready drawn, to be here to-morrow by seven o'clock, as Sir Arthur * tells me my lord marquis hath directed: for the king goes early to Hampton-Court, and will be here on Saturday.

Your books † are ready, and passing well bound up. If your lordship's letters to the king, prince, and my lord marquis were ready, I think it were good to lose no time in their delivery; for the printer's fingers itch to be selling.

My lady hath seen the house at Chiswick, and may make a shift to like it: only she means to come to your lordship thither, and not go first: and therefore your lordship may please to make the more haste, for the great lords long to be in York-house.

Mr. Johnson will be with your lordship to-morrow; and then I shall write the rest.

Your lordship's in all humbleness and honour to serve you.

TO THOMAS MEAUTYS, ESQ.

GOOD MR. MEAUTYS,

FOR the difference of the warrant, it is not material at the first. But I may not stir till I have it; and therefore I expect it to-morrow.

For my lord of London's ‡ stay, there may be an error in my book; § but I am sure there is none in me, since the king had it three months by him, and allowed it: if there be any thing to be mended, it is better to be espied now than hereafter.

I send you the copies of the three letters, which you have; and, in mine own opinion, this demur, as you term it, in my lord of London, maketh it more necessary than before, that they were delivered, specially in regard they contain withal my thanks. It may be signified they were sent before I knew of any stay; and being but in those three hands, they are private enough. But this I leave merely at your discretion, resting

Your most affectionate and assured friend,

FR. ST. ALBAN.

March 21, 1621.

* Ingram.

† "History of the Reign of King Henry VII."

TO MR. TOBIE MATTHEW.

GOOD MR. MATTHEW,

I DO make account, God willing, to be at Chiswick on Saturday; or, because this weather is terrible to one, that hath kept much in, Monday.

In my letter of thanks to my lord marquis, which is not yet delivered, but to be forthwith delivered, I have not forgotten to mention, that I have received signification of his noble favour and affection, amongst other ways, from yourself by name. If, upon your repair to the court, whereof I am right glad, you have any speech with the marquis of me, I pray place the alphabet, as you can do it right well, in a frame, to express my love faithful and ardent towards him. And for York-house, that whether in a straight line, or a compass line, I meant it his lordship in the way, which I thought might please him best. I ever rest

Your most affectionate and assured friend,

FR. ST. ALBAN.

March 21, 1621.

Though your journey to court be before your receipt of this letter, yet it may serve for another time.

TO THE QUEEN OF BOHEMIA.

IT MAY PLEASE YOUR MAJESTY,

I FIND in books, and books I dare allege to your Majesty, in regard of your singular ability to read and judge of them even above your sex, that it is accounted a great bliss for a man to have leisure with honour. That was never my fortune, nor is. For time was, I had honour without leisure; and now I have leisure without honour. And I cannot say so neither altogether, considering there remain with me the marks and stamp of the king's your father's grace, though I go not for so much in value as I have done. But my desire is now to have leisure without loitering, and not to become an abbey-lubber, as the old proverb was, but to yield some fruit of my private life. Having therefore written the reign of your Majesty's famous ancestor, king Henry the Seventh; and it having passed the file of his Majesty's judgment, and been graciously also accepted of the prince, your brother, to whom it is dedicated, I could not forget my duty so far to your excellent Majesty, to whom, for that I know and have heard, I have been at all times so much bound, as you are ever present with me, both in affection and admiration, as not to make unto you, in all humbleness,

‡ Dr. George Mountain.

§ His "History of the Reign of King Henry VII."

a present thereof, as now being not able to give you tribute of any service. If king Henry the Seventh were alive again, I hope verily he could not be so angry with me for not flattering him, as well pleased in seeing himself so truely described in colours that will last and be believed. I most humbly pray your Majesty graciously to accept of my good will; and so, with all reverence, kiss your hands, praying to God above, by his divine and most benign providence, to conduct your affairs to happy issue; and resting

Your Majesty's most humble and devoted servant,

FR. ST. ALBAN.

April 20, 1622.

SIR EDWARD SACKVILLE TO THE LORD VISCOUNT ST. ALBAN.

My very honoured lord,

Longing to yield an account of my stewardship, and that I had not buried your talent in the ground, I waited yesterday the marquis's pleasure, until I found a fit opportunity to importune some return of his lordship's resolution. The morning could not afford it; for time only allowed leave to tell him, I would say something. In the afternoon I had amends for all. In the forenoon he laid the law, but in the afternoon he preached the gospel; when, after some revivations of the old distaste concerning York-house, he most nobly opened his heart unto me, wherein I read that which argued much good towards you. After which revelation, the book was again sealed up, and must, in his own time, only by himself be again manifested unto you. I have leave to remember some of the vision, and am not forbidden to write it. He vowed, not court-like, but constantly, to appear your friend so much, as if his Majesty should abandon the care of you, you should share his fortune with him. He pleased to tell me, how much he had been beholden to you; how well he loved you; how unkindly he took the denial of your house, for so he will needs understand it. But the close, for all this, was harmonious, since he protested he would seriously begin to study your ends, now that the world should see he had no ends on you. He is in hand with the work, and therefore will, by no means, accept of your offer; though, I can assure you, the tender hath much won upon him, and mellowed his heart towards you; and your genius directed you right, when you wrote that letter of denial unto the duke.* The king saw it, and all the rest; which made him say unto the marquis, you played an after-game well; and that now he had no reason to be much offended.

I have already talked of the revelation, and now am to speak in apocalyptical language, which I hope you will rightly comment; whereof, if you make difficulty, the bearer† can help you with the key of the cypher.

My lord Falkland, by this time, hath showed you London from Highgate. If York-house were gone, the town were yours; and all your straitest shackles cleared off, besides more comfort than the city air only. The marquis would be exceedingly glad the treasurer had it. This I know; but this you must not know from me. Bargain with him presently, upon as good conditions as you can procure, so you have direct motion from the marquis to let him have it. Seem not to dive into the secret of it; though you are purblind if you see not through it. I have told Mr. Meautys how I would wish your lordship to make an end of it. From him, I beseech you, take it, and from me only the advice to perform it. If you part not speedily with it, you may defer the good which is approaching near you, and disappointing other aims, which must either shortly receive content, or never, perhaps, anew yield matter of discontent, though you may be, indeed, as innocent as before. Make the treasurer believe, that since the marquis will by no means accept of it, and that you must part with it, you are more willing to pleasure him than any body else, because you are given to understand my lord marquis so inclines; which inclination, if the treasurer shortly send unto you about it, desire may be more clearly manifested than as yet it hath been; since, as I remember, none hitherto hath told you *in terminis terminantibus*, that the marquis desires you should gratify the treasurer. I know that way the hare runs; and that my lord marquis longs until Cranfield hath it; and so I wish too, for your good, yet would not it were absolutely passed, until my lord marquis did send, or write, unto you, to let him have it; for then his so disposing of it were but the next degree removed from the immediate acceptance of it, and your lordship freed from doing it otherwise than to please him, and to comply with his own will and way.

I have no more to say, but that I am, and ever will be

Your lordship's most affectionate friend and humble servant,

E. SACKVILLE.

Indorsed,

Received the 11*th May*, 1622.

TO THE LORD KEEPER, DR. WILLIAMS, BISHOP OF LINCOLN.

My very good lord,

I understand, there is an extent prayed against me, and a surety of mine, by the executors of one Harris, a goldsmith. The statute is twelve years old, and falleth to an executor, or an executor of an executor, I know not whether. And it was sure a statute collected out of a shop debt, and much of it paid. I humbly pray your lordship, according to justice and equity, to stay the extent, being likewise upon a double penalty, till I may better inform myself touching a matter so long past, and if it be requisite, put in a bill, that the truth of the

* Of Lenox, of the 30th of January, 1621-2.

† Probably Mr. Meautys.

account appearing, such satisfaction may be made as shall be fit. So I rest

Your lordship's affectionate to do you faithful service,

FR. ST. ALBAN.

May 30, 1622.

TO THE MARQUIS OF BUCKINGHAM.

My very good lord,

I thought it appertained to my duty, both as a subject, and as he that took once the oath of a counsellor, to make known to your lordship an advertisement, which came to me this morning. A gentleman, a dear friend of mine, whom your lordship cannot but imagine, though I name him not, told me thus much, that some English priests, that negotiated at Rome to facilitate the dispensation, did their own business, that was his phrase; for they negotiated with the pope to erect some titular bishops for England, that might ordain, and have other spiritual faculties; saying withal most honestly, that he thought himself bound to impart this to some counsellor, both as a loyal subject, and as a catholic; for that he doubted it might be a cause to cross the graces and mercies, which the catholics now enjoy, if it be not prevented; and he asked my advice, whether he should make it known to your lordship, or to my lord keeper,* when he came back to London. I commended his loyalty and discretion, and wished him to address himself to your lordship, who might communicate it with my lord keeper, if you saw cause, and that he repaired to your lordship presently, which he resolved to do. Nevertheless, I did not think mine own particular duty acquitted, except I certified it also myself, borrowing so much of private friendship in a cause of state, as not to tell him I would do so much.

Indorsed,

My letter to my lord marquis, touching business of estate advertised by Mr. Matthew.†

TO THE LORD VISCOUNT ST. ALBAN.

My most honoured lord,

I come in these to your lordship with the voice of thanksgiving, for the continuance of your accustomed noble care of me and my good, which overtakes me, I find, whithersoever I go. But for the present itself, whereof your lordship writes, whether or no it be better than that I was wont to bring your lordship, the end only can prove. For I have yet no more to show for it than good words, of which many times I brought your lordship good store. But because *modicefideans* were not made to thrive in court, I mean to lose no time from assailing my lord marquis, for which purpose I am now hovering about Newhall,‡ where his lordship is expected, but not the king, this day, or to-morrow; which place, as your lordship adviseth, may not be ill chosen for my business. For, if his lordship be not very thick of hearing, sure Newhall will be heard to speak for me.

And now, my good lord, if any thing make me diffident, or indeed almost indifferent, how it succeeds, it is this; that my sole ambition having ever been, and still is, to grow up only under your lordship, it is become preposterous, even to my nature and habit, to think of prospering or receiving any growth, either without or besides your lordship. And therefore let me claim of your lordship to do me this right, as to believe that, which my heart says, or rather swears to me, namely, that what addition soever, by God's good providence, comes at any time to my life or fortune, it is, in my account, but to enable me the more to serve your lordship in both; at whose feet I shall ever humbly lay down all that I have, or am, never to rise thence other than

Your lordship's in all duty and reverent affections,

T. MEAUTYS.

September 11, 1622.

TO THE COUNTESS OF BUCKINGHAM,§ MOTHER TO THE MARQUIS OF BUCKINGHAM.

My very honourable good lady,

Your ladyship's late favour and noble usage towards me were such, as I think your absence a great part of my misfortunes. And the more I find my most noble lord, your son, to increase in favour towards me, the more, out of my love to him, I wish he had often by him so loving and wise a mother. For, if my lord were never so wise, as wise as Solomon; yet, I find that Solomon himself, in the end of his Proverbs, sets down a whole chapter of advices, that his mother taught him.

Madam, I can but receive your remembrance with affection, and use your name with honour, and intend you my best service, if I be able, ever resting

Your ladyship's humble and affectionate servant,

FR. ST. ALBAN.

Bedford-house, this 29th of October, 1622.

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* Dr. Williams, bishop of Lincoln.

† The date of this letter may be pretty nearly determined by one of the lord keeper to the marquis of Buckingham, dated August 23, 1622, and printed in the *Cabala*. The postscript to that letter is as follows: "The Spanish ambassador took the alarm very speedily of the titulary Roman bishop; and before my departure from his house at Islington, whither I went privately to him, did write both to Rome and Spain to prevent it. But I am afraid that Tobie will prove but an apocryphal, and no canonical, intelligencer, acquainting the state with this project for the Jesuits, rather than for Jesus's sake."

‡ In Essex.

§ Mary, daughter of Anthony Beaumont, a younger son of William Beaumont, of Cole-Orton, in Leicestershire. She was thrice married; 1. to Sir George Villiers, father of the duke of Buckingham; 2. to Sir William Rayner; and 3. to Sir Thomas Compton, knight of the Bath, a younger brother of William, earl of Northampton. She was created countess of Buckingham, July 1, 1618, and died April 19, 1632.

TO THE MARQUIS OF BUCKINGHAM.

My very good lord,

I have many things to thank your lordship for, since I had the happiness to see you; that your lordship, before your going out of town, sent my memorial to my lord treasurer: that your lordship offered, and received, and presented my petition to the king, and procured me a reference: that your lordship moved his Majesty, and obtained for me access to him, against his Majesty comes next, which in mine own opinion, is better than if it had been now, and will be a great comfort to me, though I should die next day after: that your lordship gave me so good English for my Latin book. My humble request is, at this time, that because my lord treasurer keepeth yet his answer in suspense, though by one, he useth to me, he speaketh me fair, that your lordship would nick it with a word: for if he do me good, I doubt it may not be altogether of his own.

God ever prosper you.

Your lordship's most bounden and faithful servant,

FR. ST. ALBAN.

4th of November, 1622.

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*Memorial of Access.**

It may please your Majesty,

I may now in a manner sing *nunc dimittis*, now I have seen you. Before methought I was scant in state of grace, but in a kind of utter darkness. And therefore, among other your mercies and favours, I do principally thank your Majesty for this admission of me to kiss your hands.

I may not forget also to thank your Majesty for your remission of my fine, for granting of my *quietus*, and general pardon; and your late recommendation of my debts; favours not small, specially to a servant out of sight, and out of use.

I beseech your Majesty to give me leave to tell you what had, in my misfortunes, sustained me. Aristotle says, "Old men live by remembrance, young men by hope." And so it is true, that young men live by hope, and fallen men by remembrance. Two remembrances have sustained me: the one, that since I had the prime vote in the lower house, to be first commissioner for the union, until the last assembly of parliament, I was chosen messenger of both houses, in the petitions of religion, which were my two first and last services, having passed a number of services of importance, your Majesty never chid me; neither did ever any public service miscarry in my hands. This was the finishing act of my prosperity. The second was of my adversity, which, in few words, is this, that as my fault was not against your Majesty, so my fall was not your act; and therefore I hope I shall live and die in your favour.

I have this farther to say in the nature of an humble oblation; for things once dedicated and vowed cannot lose their character, nor be made common. I ever vowed myself to your service. Therefore,

First, if your Majesty do at any time think it fit, for your affairs, to employ me again publicly upon the stage, I shall so live and spend my time, as neither discontinuance shall disable me, nor adversity shall discourage me, nor any thing, that I shall do, give any scandal or envy upon me.

Secondly, if your Majesty shall not hold that fit; yet, if it shall please you at any time to ask my opinion, or require my propositions privately by my lord marquis, or any of your counsellors, that is my friend, touching any commission or business; for, as Ovid said, "Est aliquid luce patente minus;" I shall be glad to be a labourer, or pioneer in your service.

Lastly, and chiefly, because your Majesty is an universal scholar, or rather master, and my pen (as I may * it, passed * *) gained upon the world, your Majesty would appoint me some task, or literary province, that I may serve you *calamo*, if not *consilio*.

I know that I am censured of some conceit of mine ability or worth: but I pray your Majesty, impute it to desire, *possuat quia posse videntur*. And again, I should do some wrong to your Majesty's school, if, in sixteen years access and near service, I should think I had learned, or laid in, nothing.

May it please your Majesty, I have borne your image in metal; and I shall keep it in my heart, while I live.

That his Majesty's business never miscarried in my hands, I do not impute to any extraordinary ability in myself; but to my freedom from particular, either friends, or ends, and my careful receipt of his Majesty's directions, being, as I have formerly said to him, but as a bucket and cistern to that fountain; a bucket to draw forth, a cistern to preserve.

I may allude to the three petitions of the Litany, "Libera nos, Domine; parce mihi, Domine; et exaudi nos, Domine." First, the first, I am persuaded, his Majesty hath a mind to do it, and could not conveniently in respect of his affairs. For the second, he had done it in my fine and pardon. For the third, I had likewise performed, in restoring to the light of his countenance.

There be mountebanks, as well in the civil body as in the natural. I ever served his Majesty with modesty; no shouldering, no undertaking.

Seneca saith, "Tam otii debet constare ratio quam negotii." So I make his Majesty oblation of both.

For envy, it is an almanack of the last year; and as a friend of mine said, the parliament died penitent towards me.

Of my offences, far be it from me to say, "dat veniam corvis, vexat censura Columbas:" but I will say that I have good warrant for; "they were not the greatest offenders in Israel, upon whom the wall of Shilo fell."

What the king bestowed upon me, will be farther seen, than upon Paul's steeple.

* This paper was written in Greek characters, soon after his access to king James I. which had been promised him in a letter of the marquis of Buckingham, from Newmarket, November 13, 1622.

My story is proud, I may thank your Majesty; for I heard him note of Tasso, that he could know which poem he made when he was in good condition, and which when he was a beggar. I doubt he could make no such observation of me.

My lord hath done many things to show his greatness. This of mine is one of them, that shows his goodness.

I am like ground fresh. If I be left to myself, I will grow and bear natural philosophy: but if the king will plough me up again, and sow me on, I hope to give him some yield.

Kings do raise and pull down with reason; but the greatest work is reasoning.

For my hap, I seek an *otium*, and, if it may be, a fat *otium*.

I am said to have a feather in my head. I pray God some are not wild in their head, that gird not well.

I am too old, and the seas are too long, for me to double the Cape of Good Hope.

Ashes are good for somewhat; for lees, for salts. But I hope I am rather embers than ashes, having the heat of good affections, under the ashes of my fortunes.

Your Majesty hath power: I have faith. Therefore a miracle may be soon wrought.

I would live to study, and not study to live; yet I am prepared for *date obolum Belisario;* and I that have borne a bag, can bear a wallet.

FOR MY PEN:

If active, 1. The reconciling of laws.
2. The disposing of wards, and generally education of youth.
3. Limiting the jurisdiction of courts, and prescribing rules for every of them.

REGLEMENT OF TRADE.

If contemplative, 1. Going on with the story of Henry the eighth.
2. General Treatise of *de Legibus et Justitia.*
3. The Holy War.

FOR MY LORD OF BUCKINGHAM.

These I rank high amongst his favours.

To the king of * * * that the goodness of his nature may strive with the goodness of his fortune.

He had but one fault, and that is, that you cannot mar him with any accumulating of honours upon him.

Now after this sunshine, and little dew, that save war.

Whales will overturn your boat, or bark, or of admiral, or other.

FOR THE PRINCE.

Ever my chief patron.

The work of the Father is creation; of the Son redemption.

You would have drawn me out of the fire; now out of the mire.

To ask leave of the king to kiss the prince's hands if he be not now present.

Indorsed,
Mem. of access.

TO THE LORD VISCOUNT ST. ALBAN.

MY MOST HONOURED LORD,

SINCE my last to your lordship, I find, by Mr. Johnson, that my lord treasurer is not twice in one mind, or Sir Arthur Ingram not twice in one tale. For Sir Arthur, contrary to his speech but yesterday with me, puts himself now, as it seems, in new hopes to prevail with my lord treasurer for your lordship's good and advantage, by a proposition, sent by Mr. Johnson, for the altering of your patent to a new mould, more safe than the other, which he seemed to dissuade, as I wrote to your lordship. I like my lord treasurer's heart to your lordship, so much every day worse than other, especially for his coarse usage of your lordship's name in his last speech, as that I cannot imagine he means you any good. And therefore, good my lord, what directions you shall give herein to Sir Arthur Ingram, let them be as safe ones, as you can think upon: and that your lordship surrender not your old patent, till you have the new under seal, lest my lord keeper should take toy, and stop it there. And I know your lordship cannot forget they have such a savage word among them, as *fleecing*. God in heaven bless your lordship from such hands and tongues; and then things will mend of themselves.

Your lordship's, in all humbleness to honour and serve you,

T. MEAUTYS.

This Sunday morning.

Indorsed,
25th of November [1622].

TO THE MARQUIS OF BUCKINGHAM.

MY VERY GOOD LORD,

I FIND my lord treasurer, after so many days and appointments, and such certain messages and promises, doth but mean to coax me, it is his own word of old, and to saw me asunder, and to do just nothing upon his Majesty's gracious reference, nobly procured by your lordship for this poor remnant. My lord, let it be your own deed; and, to use the prayers of the Litany, good Lord deliver me from this servile dependence; for I had rather beg and starve, than be fed at that door.

God ever prosper your lordship.

Your lordship's most bounden and faithful servant,

FR. ST. ALBAN.

Bedford-house, this

Indorsed,
To Buckingham, about lord treasurer Cranfield's using of him.

*Remembrances of the Lord Viscount St. Alban, upon his going to the lord treasurer.**

My lord,

For past matters, they are memorial with me. I thank God I am so far from thinking to retrieve a fortune, as I did not mark where the game fell. I ascribe all to Providence. Your lordship hath greatness; and I hope you will line it with goodness. Of me you can have no use; but you may have honour by me, in using me well: for my fortune is much in your hands.

For Sir G. I heard by Sir Arthur,† you thought well of my dealing to him; for so Ingram told me.

But I doubt he reported somewhat amiss of me, that procured that warrant; since which he thinks he may bring me to his own conditions, never comes to me, flies from that he had agreed; so to conclude with the letter upon even terms.

For the king, I must submit. Ingram told me there should be a favour in it, till I might sue to the king.

The sequestration as much as a resumption; for if it be as in the king's hands, all will go back; so it requires a farmer.

My pension and that the rewards of my long service, and relief of my present means. In parliament he said, he would not have me know what want meant.

LA. B.‡

Of York-house garden:

Of New-hall:

Of my being with my lord treasurer:

Of my business.

It is well begun: I desire it may be your act.

It is nothing out of the king's purse: it laid fair; a third part of the profit.

The king bestows honour upon reward, one honour upon alms and charity.

Time, I hope, will work this, or a better.

I know my lord will not forsake me.

He can have but one mother. Friends wayfarers, some to Waltham, some to Ware, and where the ways part, farewell.

I do not desire to stage myself, nor pretensions, but for the comfort of a private life. Yet will I be ever at your and the king's call. Malcontent or busy-body, I scorn to be.

Though my lord shall have no use of me, yet he shall have honour by me.

For envy, the almanack of that year, is past.

You may observe last parliament, though a high-aiming parliament, yet not a petition, not a clamour, not a motion, not a mention of me. Visitations by all the noblemen about the town.

A little will make me happy; the debts I have paid.

I shall honour my lord with pen and words; and be ready to give him faithful and free counsel, as ready as when I had the seal; and mine ever *suavibus modis* for safety, as well as for greatness.

The king and the prince, I hear for certain, well affected.

To dine with:

To go to New-hall.

TO THE MARQUIS OF BUCKINGHAM.

Excellent lord,

I perceive this day, by Mr. Comptroller,§ that I live continually in your lordship's remembrance and noble purposes concerning my fortunes, as well for the comfort of my estate, as for countenancing me otherwise by his Majesty's employments and graces; for which I most humbly kiss your hands, leaving the times to your good lordship; which, considering my age and wants, I assure myself, your lordship will the sooner take into your care. And for my house at Gorhambury, I do infinitely desire your lordship should have it; and howsoever I may treat, I will conclude with none, till I know your lordship's farther pleasure, ever resting

Your lordship's most obliged and faithful servant,

FR. ST. ALBAN.

Bedford-house, this 5th of Feb. 1622.‖

TO THE LORD VISCOUNT ST. ALBAN.

My very good lord,

I have received, by this bearer, the privy seal for the survey of coals, which I will lay aside, until I shall hear farther from my lord steward,¶ and the rest of the lords.

I am ready to do as much as your lordship desireth, in keeping Mr. Cotton** off from the violence of those creditors: only himself is, as yet, wanting in some particular directions.

I heartily thank your lordship for your book; and all other symbols of your love and affection, which I will endeavour upon all opportunities to deserve: and, in the mean time, do rest

Your lordship's assured faithful poor friend and servant,

JO. LINCOLN, C. S.

Westminster-college, this 7th of February, 1622.

To the right honourable his very good lord, the lord viscount St. Alban.

* These are written in Greek characters. † Ingram.
‡ Lady Buckingham, mother of the duke.
§ Henry Cary, viscount Falkland.
‖ Two days before the marquis of Buckingham set out privately, with the prince, for Spain.
¶ Duke of Lenox.
** Probably the surety of lord Bacon, for the debt to Harris the goldsmith, mentioned in his lordship's letter of May 30, 1622.

TO THE MARQUIS OF BUCKINGHAM.

EXCELLENT LORD,

THOUGH your lordship's absence* fall out in an ill time for myself; yet because I hope in God this noble adventure will make your lordship a rich return in honour, abroad and at home, and chiefly in the inestimable treasure of the love and trust of that thrice-excellent prince; I confess I am so glad of it, as I could not abstain from your lordship's trouble in seeing it expressed by these few and hasty lines.

I beseech your lordship, of your nobleness vouchsafe to present my most humble duty to his highness, who, I hope, ere long will make me leave king Henry the Eighth, and set me on work in relation of his highness's adventures.

I very humbly kiss your lordship's hands, resting ever

Your lordship's most obliged friend and servant.

February 21, 1622.

TO THE MARQUIS OF BUCKINGHAM.

EXCELLENT LORD,

UPON the repair of my lord of Rochford unto your lordship, whom I have ever known so fast and true a friend and servant unto you; and who knows likewise so much of my mind and affection towards your lordship, I could not but kiss your lordship's hands, by the duty of these few lines.

My lord, I hope in God, that this your noble adventure will make you a rich return, especially in the inestimable treasure of the love and trust of that thrice-excellent prince. And although, to a man that loves your lordship so dearly as I do, and knows somewhat of the world, it cannot be, but that in my thoughts there should arise many fears, or shadows of fears, concerning so rare an accident; yet nevertheless, I believe well, that this your lordship's absence will rather be a glass unto you, to show you many things, whereof you may make use hereafter, than otherwise any hurt or hazard to your fortunes, which God grant. For myself, I am but a man desolate till your return, and have taken a course accordingly. Vouchsafe, of your nobleness, to remember my most humble duty to his highness. And so God, and his holy angels, guard you both going and coming.

Indorsed, March 10, 1622.

* In Spain.

TO SIR FRANCIS COTTINGTON, SECRETARY TO THE PRINCE.

GOOD MR. SECRETARY,

THOUGH I wrote so lately unto you by lord Rochford; yet upon the going of my lord Vaughan,† the prince's worthy and trusty servant, and my approved friend, and your so near ally, I could not but put this letter into his hand, commending myself and my fortunes unto you. You know the difference of obliging men in prosperity and adversity, as much as the sowing upon a pavement and upon a furrow new made. Myself for quiet, and the better to hold out, am retired to Gray's-Inn:‡ for when my chief friends were gone so far off, it was time for me to go to a cell. God send us a good return of you all.

I ever rest, &c.

My humble service to my lord marquis, to whom I have written twice. I would not cloy him. My service also to the count Gondomar, and lord of Bristol.

Indorsed,

To Mr. Secretary, Sir Francis Cottington, March 22, 1622.

† He was son and heir of Walter Vaughan, of Golden Grove, in Caermarthenshire, Esq. and was created lord Vaughan, in the year 1620. The lord St. Alban, after he was delivered from his confinement in the Tower, was permitted to stay at Sir John Vaughan's house, at Parson's Green, near Fulham.

‡ In a MS. letter of Mr. Chamberlain to Sir Dudley Carleton, dated at London, March 8, 1622-3, is the following passage: "The lord of St. Alban is in his old remitter, and came to lie in his old lodgings at Gray's-Inn; which is the fulfilling of a prophecy of one Locke, a familiar of his of the same house, that knew him *intus et in cute;* who, seeing him go thence in pomp, with the great seal before him, said to divers of his friends, "We shall live to have him here again."

§ Mr. Thomas Murray, the provost of that college, having been cut for the stone, died April 1, 1623. The lord keeper Williams, in an unpublished letter to the marquis of Buckingham, dated 11 April, 1623, has the following passage: "Mr. Murray, the provost of Eton, is now dead: the place stayed by the fellows and myself until your lordship's pleasure be known. Whomsoever your lordship shall name I shall like of, though it be Sir William Becher, though this provostship never descended so low. The king named unto

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TO THE KING.

IT MAY PLEASE YOUR MAJESTY,

NOW that my friend is absent, for so I may call him still, since your Majesty, when I waited on you, told me, that fortune made no difference, your Majesty remaineth to me king, and master, and friend, and all. Your beadsman, therefore, addresseth himself to your Majesty for a cell to retire into. The particular I have expressed to my very friend, Mr. Secretary Conway. This help, which costs your Majesty nothing, may reserve me to do your Majesty service, without being chargeable unto you: for I will never deny, but my desire to serve your Majesty is of the nature of the heart, that will be *ultimum moriens* with me.

God preserve your Majesty, and send you a good return of the treasure abroad, which passeth all Indian fleets.

Your Majesty's most humble and devoted servant,

FR. ST. ALBAN.

March 25, 1623.

Indorsed,

To the king touching the provostship of Eton.§

TO MR. SECRETARY CONWAY.

Goon Mr. Secretary,

When you did me the honour and favour to visit me, you did not only in general terms express your love unto me, but, as a real friend, asked me whether I had any particular occasion, wherein I might make use of you? At that time I had none: now there is one fallen. It is, that Mr. Thomas Murray, provost of Eton, whom I love very well, is like to die. It were a pretty cell for my fortune. The college and school, I do not doubt, but I shall make to flourish. His Majesty, when I waited on him, took notice of my wants, and said to me, that as he was a king, he would have care of me. This is a thing somebody would have; and costs his Majesty nothing. I have written two or three words to his Majesty, which I would pray you to deliver. I have not expressed this particular to his Majesty, but referred it to your relation. My most noble friend, the marquis, is now absent. Next to him, I could not think of a better address than to yourself, as one likest to put on his affection. I rest

Your honour's very affectionate friend,

FR. ST. ALBAN.

Gray's-Inn, the 25th of March, 1623.

SECRETARY CONWAY, TO THE LORD VISCOUNT ST. ALBAN.*

Right honourable,

I do so well remember the motives, why I presented you so with my humble service, and particular application of it to your particular use, as I neither forget nor repent the offer. And I must confess a greater quickening could not have been added to my resolution to serve you, than the challenge you lay to my duty, to follow, in his absence, the affection of your most noble and hearty friend the marquis.

I lost no time to deliver your letter, and to contribute the most advantageous arguments I could. It seems your motion had been more than enough, if a former engagement to Sir William Becher upon the marquis his score had not opposed it.

I will give you his Majesty's answer, which was; That he could not value you so little, or conceive you would have humbled your desires and your worth so low: That it had been a great deal of ease to him to have had such a scantling of your mind; to which he could never have laid so unequal a measure. His Majesty adding farther, that since your intentions moved that way, he would study your accommodation. And it is not out of hope, but that he may give some other contentment to Sir William Becher in due time, to accommodate your lordship, of whom, to your comfort, it is my duty to tell you, his Majesty declared a good opinion, and princely care and respect.

I will not fail to use time and opportunity to your advantage: and if you can think of any thing to instruct my affection and industry, your lordship may have the more quick and handsome proof of my sure and real intentions to serve you, being indeed

Your lordship's affectionate servant,

ED. CONWAY.

Royston, March 27, 1623.

TO COUNT GONDOMAR, THEN IN SPAIN.

Illustrissime comes,

Multa sunt, quæ mihi animos addunt, et quandam alacritatem conciliant, ut dominationem tuam illustrissimam hoc tempore de meis fortunis compellam et deprecer. Primum, idque vel maximum, quod cum tam arcta regum nostrorum conjunctio jam habeatur pro transacta, inde et tu factus sis intercessor tanto potentior; et mihi nullus jam subsit scrupulus universas fortunas meas viro tanto, licet extero, debendi et acceptas referendi. Secundum, quod eum ea, quæ dominatio tua illustrissima de me promisso tenus præsens impetraveras, neque ullam repulsam passa sint, neque tamen ad exitum perducta; videatur hoc innuere providentia divina, ut hoc opus me a calamitate erigendi plane tuum sit initio et fine. Tertium, quod stellæ duæ, quæ mihi semper fuerunt propitiæ, major et minor, jam splendent in urbe vestra, unde per radios auxiliares et benignos amoris erga me tui eum possint nancisci influxum, qui me in aliquo non indigno priore fortuna gradu collocet. Quartum, quod perspexi ex literis, quas ad amicum meum intimum dominum Tobiam Matthæum nuper scripsisti, memoriam mei apud te vivere et vigere, neque tanta negotiorum arduorum et sublimium mole, quanta dom. tuæ incumbit, obrutam esse aut extinctam. Postremum accidit et illud, quod postquam ex favore excelleut. Domini marchionis ad regis mei conspectum et colloquium admissus fuerim, videar mihi in statu gratiæ collocatus. Non me allocutus est rex ut criminosum, sed ut hominem tempestate dejectum; et simul constantem meum et perpetuum in sermone suo industriæ et integritatis tenorem prolixe agnovit, eum insigni, ut videbatur, affectu: unde major mihi oboritur spes, manente ejus erga me gratia, et extincta omni ex diuturnitate invidia, labores illustr. domin. tuæ pro me non incassum fore. Ipse interim nec otio me dedi, nec rebus me importune immiscui, sed in iis vivo, et ea traeto, quæ nec priores, quos gessi, honores dedecant, et posteris memoriam nominis mei haud ingratam fortasse relinquent. Itaque apero me non indignam fore materiam, in qua et potentiæ et amicitiæ tuæ vis elucescat et celebretur; ut non minus in privata

me yesterday morning Sir Albertus Morton, Sir Dudley Carleton, and Sir [Robert] Aiton, our late queen's secretary. But in my opinion, though he named him last, his Majesty inclined to this Aiton most. It will rest wholly upon your lordship to name the man. It is somewhat necessary he be a good scholar, but more that he be a good husband, and careful manager, and a stayed man; which no man can be, that is so much indebted as the lord of St. Alban's."

* From the collections of Robert Stephens, Esq. deceased.

hominis fortuna potuisse videaris, quam in negotiis publicis. Deus illustriss. dominationem tuam in columem servet et felicitate cumulet.

Indorsed,

My lord St. Alban's first letter to Gondomor, into Spain, March 28, 1623.

TO THE MARQUIS OF BUCKINGHAM, IN SPAIN.

Excellent lord,

Finding so trusty a messenger as Sir John Epsley, I thought it my duty to put these few lines into his hands. I thank God, that those shadows, which either mine own melancholy, or my extreme love to your lordship, did put into my mind concerning this voyage of the prince and your lordship, rather vanish and diminish, than otherwise. The gross fear is past of the passage of France. I think you had the ring, which they write of, that, when the seal was turned to the palm of the hand, made men go invisible. Neither do I hear of any novelty here worth the esteeming.

There is a general opinion here, that your lordship is like enough to return, and go again, before the prince come: which opinion, whether the business lead you to do so or no, doth no hurt; for it keeps men in awe.

I find, I thank God, some glimmering of the king's favour, which your lordship's noble work of my access, no doubt, did chiefly cherish. I am much bound to Mr. Secretary Conway. It is wholly for your lordship's sake; for I had no acquaintance with him in the world. By that I see of him, he is a man fit to serve a great king, and fit to be a friend and servant to your lordship. Good my lord, write two or three words to him, both of thanks, and a general recommendation of me unto him.

Vouchsafe, of your nobleness, to present my most humble duty to his highness. We hear he is fresh in his person, and becomes this brave journey in all things. God provide all things for the best.

I ever rest, &c.

Indorsed, March 30, 1623.

TO MR. SECRETARY CONWAY.

Good Mr. Secretary,

I am much comforted by your last letter, wherein I find, that his Majesty, of his mere grace and goodness, vouchsafeth to have a care of me, a man out of sight, out of use; but yet his, as the Scripture saith, God knows those that are his. In particular, I am very much bound to his Majesty, and I pray you, Sir, thank his Majesty most humbly for it, that, notwithstanding the former designment of Sir William Becher,* his Majesty, as you write, is not out of hope, in due time, to accommodate me of this cell, and to satisfy him otherwise. Many conditions, no doubt, may be as contenting to that gentleman, and his years may expect them. But there will hardly fall, especially in the spent hour-glass of my life, any thing so fit for me, being a retreat to a place of study so near London, and where, if I sell my house at Gorhambury, as I purpose to do, to put myself in some convenient plenty, I may be accommodated of a dwelling for summer time. And therefore, good Mr. Secretary, further this his Majesty's good intention, by all means, if the place fall.

For yourself, you have obliged me much. I will endeavour to deserve it: at least your nobleness is never lost: and my noble friend, the marquis, I know, will thank you for it.

I was looking of some short papers of mine touching usury,† to grind the teeth of it, and yet make it grind to his Majesty's mill in good sort, without discontentment or perturbation. If you think good, I will send it to his Majesty, as the fruit of my leisure. But yet I would not have it come from me, not for any tenderness in the thing, but because I know, in courts of princes, it is usual, *non res, sed displicet auctor.* God keep your honour, &c.

Indorsed,

To Mr. Secretary Conway, touching the provostship of Eton, March 31, 1623.

TO COUNT GONDOMAR.

Illustrissime comes,

Primo loco, ut debeo, gratulor dominationi tuæ illustrissimæ novum honoris tui gradum per se sublimem, sed ex causa, propter quam evectus es, haud parum nobilitatum. Profectio dom. Tobiæ Matthæi, qui mihi est tanquam alter ego, ut dominatio tua illustrissima optimè novit, in illas partes, memoriam mihi renovat eximii tui erga me favoris, cum me pluries, paulo ante discessum tuum, in campis, in urbe visitares, et prolixe de voluntate tua erga fortunas meas pollicereris. Quinetiam tam apud regem meum quam apud marchionem de illis sedulo ageres, ut etiam promissum ab illis de postulatis meis obtinueris. Quod si illo tempore quis mihi genius aut vates in aurem insusurrasset et dixisset, Mitte ista in præsens: Britannia est regio paulo frigidior: differ rem donec princeps Galliæ et marchio Buckinghamiæ et comes de Gondomar conveniunt in

* Sir William had not, however, that post; but, in lieu of it, the promise of 2500*l.* upon the fall of the first of the six clerks places, and was permitted to keep his clerkship of the council. MS. letter of Mr. Chamberlain to Sir Dudley Carleton, dated at London, July 21, 1624. The provostship was given to Sir Henry Wotton, who was instituted into it the 26th of that month, having purchased it by a surrender of a grant of the reversion of the mastership of the rolls, and of another office, which was fit to be turned into present money, which he then, and afterwards, much wanted [Life of him by Mr. Isaac Walton]: for when he went to the election at Eton, soon after his being made provost, he was so ill provided, that the fellows of the college were obliged to furnish his bare walls, and whatever else was wanting. MS. letter of Mr. Chamberlain, Aug. 7, 1624.

† In his works is published, "A Dranght of an Act against an usurious Shift of Gain, in delivering of Commodities instead of Money."

Hispania, ubi hujusmodi fructus clementius matu-rescant: quin et viderit idem dom. Tob. Matthæum, qui illic, quemadmodum nunc, instabit, et negotium promovebit: scilicet risissem, sed fidem prorsus non adhibuissem. Quare, illustrissime comes, cum talia miracula edideris in fortuna publica, etiam in fortuna amici et servi tui privata eniteat virtus tua. Miraculum enim potentiæ et fidei proles est. Tu potentiam habes, ego fide abundo, si modo digna sit res ad quam dominatio tua illustrissima manum salutarem porrigat. Id tempus optime demonstrabit.

Cum nuper ad dominationem tuam illustrissimam scripserim, eo brevior fio. Hoc tantum a te peto, ut etiam inter negotia, quæ feliciter administras, consuetam digneris dom. Matthæo libertatem pro-ponendi et consulendi apud te ea, quæ in rem meam fore videbimus.

Deus illustrissimam tuam dominationem servet incolumem, ut enixe optat, etc.

TO THE EARL OF BRISTOL, AMBASSADOR IN SPAIN.

My very good lord,

Though I have written to your lordship lately, yet I could not omit to put a letter into so good a hand as Mr. Matthew's, being one, that hath often made known unto me how much I am beholden to your lordship: and knoweth likewise in what esti-mation I have ever had your lordship, not according to your fortunes, but according to your inward value. Therefore, not to hold your lordship in this time of so great business, and where I have so good a mean as Mr. Matthew, who, if there be any thing that concerns my fortune, can better express it than myself, I humbly commend myself and my service to your lordship, resting, &c.

TO SIR FRANCIS COTTINGTON, SECRETARY TO THE PRINCE.

Good Mr. Secretary,

Though I think I have cloyed you with letters, yet had I written a thousand before, I must add one more by the hands of Mr. Matthew, being as true a friend as any you or I have; and one, that made me so happy, as to have the assurance of our friendship; which if there be any stirring for my good, I pray practise in so good a conjunction as his.

I ever rest, &c.

TO MR. TOBIE MATTHEW.

Good Mr. Matthew,

Because Mr. Clarke is the first, that hath been sent since your departure, who gave me also the comfortable news, that he met you well, I could not but visit you with my letters, who have so often visited me with your kind conferences.

My health, I thank God, is better than when you left me; and, to my thinking, better than before my last sickness. This is all I need to write of myself to such a friend.

We hope well, and it is generally rather spoken, than believed, that his highness will return very speedily. But they be not the best pieces in paint-ing, that are dashed out in haste. I hope, if any thing want in the speed of time, it will be com-pensed in the fruit of time, that all may sort to the best.

I have written a few words of duty and respect only to my lord marquis, and Mr. Secretary. I pray you kiss the count of Gondomar's hand.

God keep you.

Your most affectionate and assured friend,

FR. ST. ALBAN.

May 2, 1623.

TO THE DUKE OF BUCKINGHAM

Excellent lord,

I write now only to congratulate with your Grace your new honour;* which because I reckon to be no great matter to your fortune, though you are the first English duke that hath been created since I was born, my compliment shall be the shorter. So having turned almost my hopes of your Grace's re-turn, by July, into wishes, and not to them neither, if it should be any hazard to your health, I rest, &c.

Vouchsafe, of your nobleness, to present my most humble duty to his highness. Summer is a thirsty time; and sure I am, I shall infinitely thirst to see his highness's and your Grace's return.

THE DUKE OF BUCKINGHAM TO THE LORD VISCOUNT ST. ALBAN.

My good lord,

I have received your hearty congratulation for the great honour and gracious favour which his Majesty hath done me; and I do well believe, that no man is more glad of it than yourself.

Tobie Matthew is here; but what with the jour-ney, and what with the affliction he endures, to find, as he says, that reason prevails nothing with these people, he is grown extreme lean, and looks as sharp as an eyas.† Only he comforts himself with a conceit, that he is now gotten on the other side of the water, where the same reason, that is valuable in other parts of the world, is of no validity here; but rather something else, which yet he hath not found out.

I have let his highness see the good expressions of your lordship's care and faithful affection to his

* The title of duke, conferred on him May 18, 1623.

† A young hawk, just taken out of the nest.

person; and shall ever be ready to do you, in all things, the best service that I can.

So wishing your lordship much happiness, I rest

Your lordship's faithful friend and humble servant,

G. BUCKINGHAM.

Madrid, this 29th of May, 1623, *st. vet.*

TO THE DUKE OF BUCKINGHAM, IN SPAIN.

EXCELLENT LORD,

I HUMBLY thank your Grace for your letter of the 29th of May; and that your Grace doth believe, that no man is gladder of the increase of your honour and fortune, than I am; as, on the other part, no man should be more sorry, if it should in the least degree decline, nor more careful, if it should so much as labour. But of the first, I speak as a thing that is: but of the two latter, it is but a case put, which I hope I shall never see. And, to be plain with your Grace, I am not a little comforted to observe, that, although in common sense and experience, a man would have doubted, that some things might have sorted to your prejudice; yet in particulars we find nothing of it. For a man might reasonably have feared, that absence and discontinuance might have lessened his Majesty's favour: no such thing has followed. So likewise, that any, that might not wish you well, should have been bolder with you. But all is continued in good compass. Again, who might not have feared, that your Grace being there to manage, in great part, the most important business of Europe, so far from the king, and not strengthened with advice there, except that of the prince himself, and thus to deal with so politic a state as Spain, you should be able to go through as you do? and yet nothing, as we hear, but for your honour, and that you do your part. Surely, my lord, though your virtues be great, yet these things could not be, but that the blessing of God, which is over the king and the prince, doth likewise descend upon you as a faithful servant; and you are the more to be thankful to God for it.

I humbly thank your Grace, that you make me live in his highness's remembrance, whom I shall ever bear a heart to honour and serve. And I much joy to hear of the great and fair reputation, which at all hands are given him.

For Mr. Matthew, I hope by this time he hath gathered up his crumbs; which importeth much, I assure your Grace, if his cure must be, either by finding better reason on that side the line, or by discovering what is the motion that moveth the wheels, that, if reason do not, we must all pray for his being in good point. But in truth, my lord, I am glad he is there; for I know his virtues, and particularly his devotion to your lordship.

God return his highness and your Grace unto us safe and sound, and according to your heart's desires.

* N. S.

TO MR. TOBIE MATTHEW.

GOOD MR. MATTHEW,

I HAVE received your letter of the 10th of June,* and am exceeding glad to hear you are in so good health. For that, which may concern myself, I neither doubt of your judgment in choosing the fittest time, nor of your affection in taking the first time you shall find it. For the public business, I will not turn my hopes into wishes yet, since you write as you do; and I am very glad you are there, and, as I guess, you went in good time to his lordship.

For your action of the case, it will fall to the ground; for I have not heard from the duke, neither by letter nor message, at this time.

God keep you. I rest always

Your most affectionate and faithful servant,

FR. ST. ALBAN.

Gray's-Inn, 17th of June, 1623.

I do hear from Sir Robert Ker, and others, how much beholden I am to you.

TO MR. TOBIE MATTHEW.

GOOD MR. MATTHEW,

I THANK you for your letter of the 26th of June, and commend myself unto your friendship, knowing your word is good assurance, and thinking I cannot wish myself a better wish, than that your power may grow to your will.

Since you say the prince hath not forgot his commandment, touching my History of Henry VIII. I may not forget my duty. But I find Sir Robert Cotton, who poured forth what he had, in my other work, somewhat dainty of his materials in this.

It is true, my labours are now most set to have those works, which I had formerly published, as that of "Advancement of Learning," that of "Henry VII." that of the "Essays," being retractate, and made more perfect, well translated into Latin by the help of some good pens, which forsake me not, for these modern languages will, at one time or other, play the bankrupts with books; and since I have lost much time with this age, I would be glad, as God shall give me leave, to recover it with posterity.

For the essay of friendship, while I took your speech of it for a cursory request, I took my promise for a compliment. But since you call for it, I shall perform it.†

I am much beholden to Mr. Gage for many expressions of his love to me: and his company, in itself very acceptable, is the more pleasing to me, because it retaineth the memory of yourself.

This letter of yours, of the 26th, lay not so long by you, but it hath been as speedily answered by me, so as with Sir Francis Cottington I have had no speech since the receipt of it. Your former let-

† Among his "Essays," published in quarto, and dedicated to the duke of Buckingham, is one upon "Friendship."

ters, which I received from Mr. Griesley, I had answered before, and put my letter into a good hand.

For the great business, God conduct it well. Mine own fortune hath taught me expectation.

God keep you.

Indorsed,
To Mr. Matthew, into Spain.

TO MR. TOBIE MATTHEW.

Good Ma. Matthew,

I have received your letter sent by my lord of Andover; and, as I acknowledged your care, so I cannot fit it with any thing, that I can think on for myself: for since Gondomar, who was my voluntary friend, is in no credit, neither with the prince, nor with the duke, I do not see what may be done for me there; except that which Gondomar hath lost, you have found; and then I am sure my case is amended; so, as with a great deal of confidence, I commend myself to you, hoping that you will do what in you lieth, to prepare the prince and duke to think of me upon their return. And if you have any relation to the infanta, I doubt not but it shall be also to my use.

God keep you.

Your most affectionate and assured friend, &c.

TO THE DUKE OF BUCKINGHAM.

Excellent Lord,

Though I have formerly given your Grace thanks for your last letter, yet being much refreshed to hear things go so well, whereby we hope to see you here shortly, your errand done, and the prince within the vail; I could not contain, but congratulate with your lordship, seeing good fortune, that is God's blessing, still follow you. I hope I have still place in your love and favour; which if I have, for other place, it shall not trouble me. I ever rest

Your Grace's most obliged and faithful servant.

July, 22, 1623.

TO THE DUKE OF BUCKINGHAM.

Excellent Lord,

Upon Mr. Clarke's despatch, in troth I was ill in health, as he might partly perceive. Therefore I wrote to my true friend, and your Grace's devoted servant, Mr. Matthew, to excuse me to your Grace for not writing. Since, I thank God, I am pretty well recovered; for I have lain at two wards, one against my disease, the other against my physicians, who are strange creatures.

My lord, it rejoiceth me much, that I understand from Mr. Matthew, that I live in your Grace's remembrance; and that I shall be the first man, that you will think on upon your return: which if your Grace perform, I hope God Almighty, who hath hitherto extraordinarily blessed you in this rocky business, will bless you the more for my sake. For I have had extraordinary tokens of his divine favour towards me, both in sickness and in health, prosperity and adversity.

Vouchsafe to present my most humble duty to his highness, whose happy arrival will be a bright morning to all. I ever rest

Your Grace's most obliged and faithful servant,
FR. ST. ALBAN.

Gray's-Inn, Aug. 29, 1623.

TO MR. TOBIE MATTHEW.

Good Mr. Matthew,

I have gotten a little health; I praise God for it. I have therefore now written to his Grace, that I formerly, upon Mr. Clarke's despatch, desired you to excuse me for not writing, and taken knowledge, that I have understood from you, that I live in his Grace's remembrance; and that I shall be his first man, that he will have care of upon his return. And although your absence be to me as uncomfortable to my mind, as God may make it helpful to my fortunes; yet it is somewhat supplied by the love, freedom, and often visitations of Mr. Gage; so as when I have him, I think I want you not altogether.

Good keep you.

Your most affectionate and much obliged friend, &c,

Minutes of a Letter to the Duke of Buckingham.

That I am exceeding glad his Grace is come home* with so fair a reputation of a sound protestant, and so constant for the king's honour and errand.

His Grace is now to consider, that his reputation will vanish like a dream, except now, upon his return, he do some remarkable act to fix it, and bind it in.

They have a good wise proverb in the country, whence he cometh, taken I think from a gentlewoman's sampler, "Qui en no da nudo, pierdo punto," "He that tieth not a knot upon his thread, loseth his stitch."

Any particular I, that live in darkness, cannot propound. Let his Grace, who seeth clear, make his choice: but let some such thing be done, and then this reputation will stick by him; and his Grace may afterwards be at the better liberty to take and leave off the future occasions, that shall present.

* The prince and duke arrived from Spain in London, October 6, 1623.

TO THE KING.

IT MAY PLEASE YOUR MOST EXCELLENT MAJESTY,

I SEND, in all humbleness, to your Majesty, the poor fruits of my leisure. This book * was the first thing that ever I presented to your Majesty; † and it may be, will be the last. For I had thought it should have been *posthuma proles*. But God hath otherwise disposed for a while. It is a translation, but almost enlarged to a new work. I had good helps for the language. I have been also mine own *index expurgatorius*, that it may read in all places. For since my end of putting it into Latin was to have it read every where, it had been an absurd contradiction to free it in the language, and to pen it up in the matter. Your Majesty will vouchsafe graciously to receive these poor sacrifices of him, that shall ever desire to do you honour while he breathes, and fulfilleth the rest in prayers.

Your Majesty's true beadsman, and most humble servant, &c.

Todos duelos con pan son buenos: itaque det vestra Majestas obolum Belisario.

TO THE PRINCE.

IT MAY PLEASE YOUR EXCELLENT HIGHNESS,

I SEND your highness, in all humbleness, my book of "Advancement of Learning," translated into Latin, but so enlarged as it may go for a new work. It is a book, I think, will live, and be a citizen of the world, as English books are not. For Henry the Eighth, to deal truly with your highness, I did so despair of my health this summer, as I was glad to choose some such work, as I might compass within days; so far was I from entering into a work of length. Your highness's return hath been my restorative. When I shall wait upon your highness, I shall give you a farther account. So I most humbly kiss your highness's hands, resting

Your highness's most devoted servant.

I would, as I wrote to the duke in Spain, I could do your highness's journey any honour with my pen. It began like a fable of the poets; but it deserveth all in a piece a worthy narration.

Conf. Buc.‡

MY LORD,

MY counsels bear not so high an elevation, as to have for their mark business of estate. That, which I level at, is your standing and greatness, which nevertheless I hold for a main pillar of the king's service.

For a parliament, I hold it then fit, when there have passed some more visible demonstrations of your power with the king, and your constancy in the way you are in: before not.

There are considerable, in this state, three sorts of men: the party of the papists, which hate you; the party of the protestants, including those they call puritans, whose love is yet but green towards you; and particular great persons, which are most of them reconciled enemies, or discontented friends: and you must think there are a great many that will magnify you, and make use of you for the breaking of the match, or putting the realm into a war, which after will return to their old bias.

For particulars, it is good to carry yourself fair; but neither to trust too far, nor to apply too much, but keep a good distance, and to play your own game, showing yourself to have, as the bee hath, both of the honey and of the sting.

The speech now abroad is, "My lord of Buckingham's head is full of thoughts: he hath a great task; either he must break, or the match must break. He was wont to go to the king's ways; but now he goeth cross his way, he will easily lose his way."

There is a point nice to be managed, yea, and tender to be spoken of, which is your carriage between the king and the prince; so that you may lose no manner of ground with the prince, and yet the king may not think himself the more solitary, nor that you adore too much the sun-rising. Though this you may set down, that the way to have the king sure unto you is to keep great with the prince.

Conf. with Buc. December 17, 1623.

You march bravely: but methinks you do not draw up your troops.

You must beware of these your pardons. If we make men less in awe, and respect you, "urina chiara fa fico al medico.'

The points of the general advice.

If a war be proceeded in; to treat a strait league with France, under name of a renovation of a match with France. Three secret articles, the liberty of the German nation, whereof there is a fresh precedent of Henry the second of France, that took it into protection prosperously, and to the arrest of the emperor Charles's greatness. 2. The conservation of the liberties of the Low-Countries for the United Provinces, and open trade into the East and West Indies.

Offer of mine own service upon a commission into France.

My lord hath against him these disadvantages; the catholic party; the Spaniard; the envy and fear of particular great men; the nice point of carrying himself between the king and the prince.

The knot, which is to be tied for his reputation, must either be advancing or depressing of persons, or putting by or forwarding of actions.

* "De Augmentis Scientiarum," printed in London, 1623, in folio. The present to king James I. is in the royal library in the British Museum.

† "The two books of Sir Francis Bacon of the Proficiency and Advancement of Learning, Divine and Human:" printed at London, 1605, in quarto.

‡ "Conference with Buckingham."

Conf. Buc. qu. and old store, January 2, 1623.

Tarse is not an honester man in court than Montgomery.*

To have some opportunity by the D.'s means, to speak with the prince in presence of the duke.

To think, whether it be fit for me to speak with the king, and to seek access before parliament; if then.

The offer of my service to live a summer, as upon mine own delight, at Paris, to settle a fast intelligence between France and us.

I have somewhat of the French: I love birds, as the king doth, and have some childish-mindedness, wherein we shall consent.

To think of Belfast's sending over into Ireland. Those, that find themselves obnoxious to parliament, will do all they can, that those things, which are likest to distaste the king, be first handled.

It is not to be forgotten, that as long as great men were in question, as in my case, all things went sweetly for the king. But the second meeting, when no such thing was, the pack went higher.

Weeding time is not yet come. Cott. Car.
qu. of Car.

The battery will be chiefly laid on the prince's part, if they find any entry.

To be the author of some counsel to the prince, that tasteth of religion and virtue, lest it be imputed, that he entertains him only in pleasures, like a Pe. Ga.

The things remarkable for your Grace, to fix and bind in the reputation which you have gained, must be either persons, or matters.

The doubt the prince is *mollis cera*, and formed *di ultima impression*. Therefore good to have sure persons about him, or at least none dangerous.

For the pardons to proceed, it is a tender business. First, whatsoever useth to be done in parliament is thankless. Then it is not good for his Grace. It will make men bolder with him. "Urina chiara fa fico al medico." Lastly, remove the envy from others, it may beat upon my lord himself, or the king.

Conf. B. January 2, 1623.

You have now tied a knot, as I wished you; "qui en no da nudo, pierdo punto;"† a jolly one, the parliament. Although I could have wished, that before a parliament, some remarkable thing had been done, whereby the world might have taken notice, that you stand the same in grace and power with the king. But there is time enough for that between this and parliament.‡ And besides, the very prevailing for a parliament showeth your power with the king.

You march bravely. Do you draw up your troops so well?

One of these days I shall turn my lord Brooke, and say to you, "O brave Buckingham."

I will commend you to all others, and censure you only to yourself.

You bowl well, if you do not horse the bowl a hand too much. You know the fine bowler is knee almost to ground in the delivery of the cast.

Nay, and the king will put a hook in the nostrils of Spain, and lay a foundation of greatness here to his children, in these west parts. The call for me, it is book-learning. You know the king was wont to do me the honour, as to say of me, "de minimis non curat lex:" if good for any thing, for great volumes, I cannot thread needles so well.

The chamberlain:§ for his person, not effectual; but some dependences he hath, which are drawn with him. Besides, he can take no reputation from you.

Montgomery is an honest man, and a good observer. Can you do nothing with Naunton?‖ Who would think now, that I name Naunton to my lord of Buckingham? But I speak to you point blank: no crooked end, either for myself, or for others' turn.

The French treaty, besides allianee, is to have three secret articles: the one, the protection of the liberty of Germany, and to avoid from it all forces thence, like to that which was concluded between the princes of Germany and Henry II.,¶ the last king except Henry IV. of value in France; for the race of the Valois were *faitneants:* and, in the name of Germany, to conclude the Grisons and Valtoline. The second, the conserving the liberties of the Low-Countries. The third, the free trade into all parts of both East and West Indies. All these import no invasive hostility, but only the uniting of the states of Europe against the growing ambition of Spain. Neither do any of these touch upon the cause of religion.

I am persuaded, the hinge of the king's affairs, for his safety and greatness, is now in Spain. I would the king had an abler instrument.

Above all, you must look to the safety of Ireland, both because it is most dangerous for this state, for the disease will ever fall to the weakest part; and besides, this early declaration against Spain, which the popish party call abrupt, and is your Grace's work, may be thought to be the danger of Ireland. It were good you called to you Belfast** and Grandison,†† and ask their opinions, what is best to be done for the safety of Ireland, either by increasing the list of companies, and by contenting those that are in arrear, by paying; or by altering any governor there; or by having companies ready mustered and trained here, towards the coast of Ireland; or by having shipping in readiness, &c. For this gown commission, I like it well; but it is but paper-shot for defence.

* Philip, earl of Montgomery, afterwards of Pembroke.
† "He that tieth not a knot upon his thread, lose'th his stitch."
‡ It met February 19, 1623-4.
§ William, earl of Pembroke.
‖ Sir Robert Naunton, who had been secretary of state, and was now master of the court of wards.
¶ This league first arrested the greatness of the emperor, and cloistered him. *Note of Lord Bacon.*
** Arthur Chichester, baron of Belfast, who had been made lord deputy of Ireland in 1604.
†† Oliver St. John viscount Grandison, made lord deputy of Ireland in August, 1616.

If the papists be put in despair, it both endangereth Ireland, and maketh a greater difficulty in the treaty and alliance with France.

To think of a difference to be put between the Jesuits and other priests and papists, as to reduce, in some moderation, the banishment of the one, though not of the other: but to remember, that they were the reasonablest, as I take it, in the consult; and it may draw the blow of an assassin against Buckingham.

At least the going on with the parliament hath gained this, that the discourse is ceased, "My lord of Buckingham hath a great task. His head is full: either the match breaks, or his fortune breaks. He has run his courses with the stream of the king's ways; but now he goeth cross-way, he may soon lose his own way."

If your Grace go not now constantly on for religion, and round dealing with Spain, men will either think they were mistaken in you, or that you are brought about; or that your will is good, but you have no power.

Your Grace hath a great party against you, and a good rough way. The Spaniards hate you; the papists little better. In the opinion of the people, you are green, and not yet at a gage. Particulars are, for the most part, discontented friends or reconciled enemies; and that nice dividing between the *sol orient* and *occident*.

TO THE DUKE OF BUCKINGHAM.

EXCELLENT LORD,

I DESIRE in this, which I now presume to write to your Grace, to be understood, that my bow carrieth not so high, as to aim to advise touching any of the great affairs now on foot, and so to pass it to his Majesty through your hands; though it be true, that my good affection towards his Majesty and the prince and the public is that which will last die in me; and though I think also his Majesty would take it but well, if having been that man I have been, my honest and loyal mind should sometimes feed upon those thoughts. But my level is no farther, but to do the part of a true friend, in advising yourself for your own greatness and safety; although, even in this also, I assure myself I perform a good duty to the public service, unto which I reckon your standing and power to be a firm and sound pillar of support.

First, therefore, my lord, call to mind oft, and consider duly, how infinitely your Grace is bound to God in this one point, which I find to be a most rare piece, and wherein, either of ancient or late times, there are few examples; that is, that you are beloved so dearly, both by the king and the prince. You are not as a Lerma, or an Olivares, and many others the like, who have insinuated themselves into the favours of young princes, during the kings, their fathers, time, against the bent and inclination of the kings: but contrariwise, the king himself hath knit the knot of trust and favour between the prince and your Grace, wherein you are not so much to take comfort in that you may seem to have two lives in your own greatness, as in this, that hereby you are enabled to be a noble instrument for the service, contentment, and heart's-ease, both of father and son. For where there is so loving and indulgent a father, and so respective and obedient a son, and a faithful and worthy servant, interested in both their favours upon all occasions, it cannot be but a comfortable house. This point your Grace is principally to acknowledge and cherish.

Next, that, which I should have placed first, save that the laying open of God's benefits is a good preparation to religion and godliness, your Grace is to maintain yourself firm and constant in the way you have begun; which is, in being, and showing yourself to be, a true and sound protestant. This is your soul's health. This is that you owe to God above, for his singular favours; and this is that which hath brought you into the good opinion and good will of the realm in general. So that, as your case differeth, as I said, from the case of other favourites, in that you have both king and prince; so in this, that you have also now the hearts of the best subjects, for I do not love the word *people*, your case differeth from your own, as it stood before. And because I would have your reputation in this point complete, let me advise you, that the name of Puritans in a papist's mouth do not make you to withdraw your favour from such as are honest and religious men; so that they be not so turbulent and factious spirits, or adverse to the government of the church, though they be traduced by that name. For of this kind is the greatest part of the body of the subjects; and besides, which is not to be forgotten, it is safest for the king and his service, that such men have their dependence upon your Grace, who are entirely the king's, rather than upon any other subject.

For the papists, it is not unknown to your Grace, that you are not, at this time, much in their books. But be you like yourself; and far be it from you, under a king and prince of that clemency, to be inclined to rigour or persecution.

But three things must be looked unto; the first, that they be suppressed in any insolency, which may tend either to disquiet the civil estate, or scandalize our church in fact; for otherwise, all their doctrine doth it in opinion. The second, that there be an end, or limit, of those graces, which shall be thought fit for them, and that there be not every day new demands hearkened to. The third, that for those ease and graces, which they have received, or shall receive, of the state, the thanks go the right way; that is, to the king and prince, and not to any foreigner. For this is certain, that if they acknowledge them from the state, they may perhaps sit down when they are well. But if they have a dependence upon a foreigner, there will be no end of their growing desires and hopes. And in this point also, your lordship's wisdom and moderation may do much good.

For the match with Spain, it is too great and dark a business for me to judge of. But as it hath rela-

tion to concern yourself, I will, as in the rest, deal freely with your Grace.

My lord, you owe, in this matter, two debts to the king: the one, that, if in your conscience and judgment you be persuaded it be dangerous and prejudicial to him and his kingdoms, you deliver your soul, and in the freedom of a faithful counsellor, joined with the humbleness of a dutiful servant, you declare yourself accordingly, and show your reasons. The other, that if the king in his high judgment, or the prince in his settled affection, be resolved to have it go on, that then you move in their orb, as far as they shall lay it upon you. But meanwhile, let me tell your Grace that I am not of the general opinion abroad, that the match must break, or else my lord of Buckingham's fortune must break. I am of another opinion; and yet perhaps it will be hard to make you believe it, because both sides will persuade you to the contrary. For they that would not have it go on will work upon that conceit, to make you oppose it more strongly. They that would have it go on will do the same, to make you take up betimes, and come about. But I having good affiance in your Grace's judgment, will tell you my reasons why I thus think, and so leave it. If the match should go on, and put case against your counsel and opinion, doth any man think, that so profound a king, and so well seen in the science of reigning, and so understanding a prince, will ever suffer the whole sway of affairs and greatness to go that way? And, if not, who should be a fitter person to keep the balance even than your Grace, whom the king and prince know to be so entirely their own, and have found so nobly independent upon any other? Surely my opinion is, you are likely to be greater by counterpoise against the Spanish dependence, than you will by concurrence. And therefore, in God's name, do your duty faithfully and wisely; for behaving yourself well otherwise, as I know you will, your fortune is like to be well either way.

For that excellent lady, whose fortune is so distant from her merits and virtue, the queen of Bohemia, your Grace, being as it were the first-born or prime man of the king's creatures, must in consequence owe the most to his children and generations; whereof I know your noble heart hath far greater sense than any man's words can infuse into you. And therefore whatsoever liveth within the compass of your duty, and of possibility, will no doubt spring from you out of that fountain.

It is open to every man's discourse, that there are but two ways for the restitution of the Palatinate, treaty and arms. It is good, therefore, to consider of the middle acts, which may make either of these ways desperate, to the end they may be avoided in that way which shall be chosen. If no match, either this with Spain, or perhaps some other with Austria, no restitution by treaty. If the Dutch, either be ruined, or grow to a peace, of themselves, with Spain, no restitution by war.

But these things your Grace understandeth far better than myself. And, as I said before, the points of state I aim not at farther, than they may concern your Grace, to whom while I live, and shall find it acceptable to you, I shall ever be ready to give the tribute of a true friend and servant, and shall always think my counsels given you happy, if you shall pardon them when they are free, and follow them when they are good. God preserve and prosper you.

TO THE DUKE OF BUCKINGHAM.*

EXCELLENT LORD,

THERE is a suit, whereunto I may, as it were, claim kindred, and which may be of credit and profit unto me; and it is an old arrear, which is called upon, from Sir Nicholas Bacon, my eldest brother. It may be worth to me perhaps two thousand pounds; and yet I may deal kindly with my brother, and also reward liberally, as I mean to do, the officers of the exchequer, which have brought it to light. Good my lord, obtain it of the king, and be earnest in it for me. It will acquit the king somewhat of his promise, that he would have care of my wants; for hitherto, since my misfortunes, I have tasted of his Majesty's mercy, but not of his bounty. But your lordship may be pleased in this, to clear the coast with my lord treasurer; else there it will have a stop. I am almost at last cast for means; and yet it grieveth me most, that at such a time as this I should not be rather serviceable to your Grace, than troublesome.

God preserve and prosper your Grace.

Your Grace's most obliged and faithful servant,

FR. ST. ALBAN.

This 23d of January, 1623.

TO THE EARL OF OXFORD.†

MY VERY GOOD LORD,

LET me be an humble suitor to your lordship, for your noble favour. I would be glad to receive my writ this parliament,‡ that I may not die in dishonour; but by no means, except it should be with the love and consent of my lords to re-admit me, if their lordships vouchsafe to think me worthy of their company; or if they think that which I have suffered now these three years, in loss of place, in loss of means, and in loss of liberty for a great time, to be a sufficient expiation for my faults, whereby I may now seem in their eyes to be a fit subject of their grace, as I have been before of their justice. My good lord, the good, which the commonwealth might reap of my suffering, is already inned. Justice is done; an example is made for reformation; the authority of the house for judicature is established. There can

* The duke's answer to this letter, dated at Newmarket, the 28th of January, 1623, is printed page 133.

† Henry Vere, who died in 1625. He was lord great chamberlain of England.

‡ That met February 19, 1623, and was prorogued May 29, 1624.

be no farther use of my misery; perhaps some little may be of my service; for, I hope I shall be found a man humbled as a christian, though not dejected as a worldling. I have great opinion of your lordship's power, and great hope, for many reasons, of your favour; which if I may obtain, I can say no more but nobleness is ever requited in itself; and God, whose special favour in my afflictions I have manifestly found to my comfort, will, I trust, be my pay-master of that, which cannot be requited by

Your lordship's affectionate humble servant, &c.

Indorsed, February 2, 1623.

TO SIR FRANCIS BARNHAM.*

GOOD COUSIN,

UPON a little searching, made touching the patents of the survey of coals, I find matter not only to acquit myself, but likewise to do myself much right.

Any reference to me, or any certificate of mine, I find not. Neither is it very likely I made any; for that, when it came to the great seal, I stayed it. I did not only stay it, but brought it before the council-table, as not willing to pass it, except their lordships allowed it. The lords gave hearing to the business, I remember, two several days; and in the end disallowed it, and commended my care and circumspection, and ordered, that it should continue stayed; and so it did all my time.

About a twelvemonth since, my lord duke of Lenox, now deceased,† wrote to me to have the privy seal; which, though I respected his lordship much, I refused to deliver to him, but was content to put it into the right hand; that is, to send it to my lord keeper,‡ giving knowledge how it had been stayed. My lord keeper received it by mine own servant, writeth back to me, acknowledging the receipt, and adding, that he would lay it aside until his lordship heard farther from my lord steward,§ and the rest of the lords. Whether this first privy seal went to the great seal, or that it went about again, I know not; but all my part is, that I have related. I ever rest

Your faithful friend and cousin,

FR. ST. ALBAN.

March 14, 1623.

TO THE DUKE OF BUCKINGHAM.

MY LORD,

I AM now full three years old in misery; neither hath there been any thing done for me, whereby I might die out of ignominy, or live out of want. But now that your Grace, God's name be praised for it, hath recovered your health, and are come to the court, and the parliament business hath also intermission, I firmly hope your Grace will deal with his Majesty, that, as I have tasted of his mercy, I may also taste of his bounty. Your Grace, I know, for a business of a private man, cannot win yourself more honour; and I hope I shall yet live to do you service. For my fortune hath, I thank God, made no alteration in my mind, but to the better. I ever rest humbly

Your Grace's most obliged and faithful servant,

FR. ST. ALBAN.

If I may know, by two or three words from your Grace, that you will set in for me, I will propound somewhat that shall be modest, and leave it to your Grace, whether you will move his Majesty yourself, or recommend it by some of your lordship's friends, that wish me well; [as my lord of Arundel, or Secretary Conway, or Mr. James Maxwell.]‖

TO THE DUKE OF BUCKINGHAM.

EXCELLENT LORD,

I UNDERSTAND, by Sir John Suckling, that he attended yesterday at Greenwich, hoping, according to your Grace's appointment, to have found you there, and to have received your Grace's pleasure touching my suit, but missed of you: and this day he sitteth upon the subsidy at Brentford, and shall not be at court this week: which causeth me to use these few lines, to hear from your Grace, I hope, to my comfort: humbly praying pardon, if I number thus the days, that misery should exceed modesty. I ever rest

Your Grace's most faithful and obliged servant,

FR. ST. ALBAN.

June 30, 1624.

TO SIR RICHARD WESTON, CHANCELLOR OF THE EXCHEQUER.

MR. CHANCELLOR,

THIS way, by Mr. Myn, besides a number of little difficulties it hath, amounteth to this, that I shall pay interest for mine own money. Besides, I must confess, I cannot bow my mind to be a suitor, much less a shifter, for that means, which I enjoy by his Majesty's grace and bounty. And therefore I am rather ashamed of that I have done, than minded to go forward. So that I leave it to yourself, what you think fit to be done in your honour and my case, resting

Your very loving friend,

FR. ST. ALBAN.

London, this 7th of July, 1624.

* He appears to be a relation of his lordship's lady, who was daughter of Benedict Barnham, Esq. alderman of the city of London. Sir Francis was appointed by his lordship one of the executors of his last will.

† He died suddenly, February 12, 1623-4.

‡ See his letter to lord St. Alban, of February 7, 1622.

§ James, marquis of Hamilton, who died March 2, 1624-5.

‖ The words included in brackets have a line drawn after them.

TO THE DUKE OF BUCKINGHAM.

EXCELLENT LORD,

Now that your Grace hath the king private, and at better leisure, the noise of soldiers, ambassadors, parliaments, a little ceasing, I hope you will remember your servant; for at so good a time.* and after so long a time, to forget him, were almost to forsake him. But, howsoever, I shall still remain

Your Grace's most obliged and faithful servant,

FR. ST. ALBAN.

I am bold to put into my good friend, Sir Tubie Matthew's hand, a copy of my petition, which your Grace had sent to Sir John Suckling.

Indorsed, August, 1624.

TO THE DUKE OF BUCKINGHAM.

EXCELLENT LORD,

I AM infinitely bound to your Grace for your late favours. I send your Grace a copy of your letter, signifying his Majesty's pleasure, and of the petition. The course, I take it, must be, to make a warrant for the execution of the same, by way of reference to Mr. Chancellor of the exchequer, and Mr. Attorney.† I most humbly pray your Grace likewise, to prostrate me at his Majesty's feet, with most humble thanks for the grant of my petition, whose sweet presence since I discontinued, methinks I am neither amongst the living, nor amongst the dead.

I cannot but likewise gratulate his Majesty on the extreme prosperous success of his business, since this time twelvemonth. I know I speak it in a dangerous time, because the die of the Low-Countries is upon the throw. But yet that is all one. For if it should be a blow, which I hope in God it shall not, yet it would have been ten times worse, if former courses had not been taken. But this is the raving of a hot ague.

God evermore bless his Majesty's person and designs, and likewise make your Grace a spectacle of prosperity, as you have hitherto been.

Your Grace's most faithful and obliged, and by you revived servant,

FR. ST. ALBAN.

Gray's-Inn, 9th of October, 1624.

TO THE CHANCELLOR OF THE DUCHY,‡ SIR HUMPHREY MAY.

GOOD MR. CHANCELLOR,

I DO approve very well of your forbearance to move my suits, in regard the duke's return § is so near at hand, which I thought would have been a longer matter; and I imagine there is a *gratiastitium* till he come. I do not doubt but you shall find his Grace nobly disposed. The last time you spake with him about me, I remember you sent me word, he thanked you for being so forward for me. Yet I could wish, that you took some occasion to speak with him, generally to my advantage, before you move to him any particular suit; and to let me know how you find him.

My lord treasurer sent me a good answer touching my moneys. I pray you continue to quicken him, that the king may once clear with me. A fire of old wood needeth no blowing; but old men do. I ever rest

Yours to do you service.

Consultations in Parliament anno 1 Caroli Regis, at Westminster, anno Domini 1625.‖

[Found among Lord Bacon's Papers.]

THE consultations now in parliament may be regulated into these four heads following.

1. The state of the king in the constant revenue of his crown.
   - 1. What it was: and how far the *introitus et exitus* there ordered. Vide my book of a medium for ten years before *primo Jacobi regis*.
   - 2. What now it is in clear revenue, either by
     - Lands;
     - Customs and impositions;
     - Casualties.
   - 3. The means how it is abated by
     - Gifts of land, *ex mero motu*, and no valuable consideration. This may be revoked.
     - Grants of pensions, now £120,000, before but £18,000. Good times have resumed them upon necessity.
     - Increase of household, from £45,000 to £80,000
     - The purveyors more, and the tables less furnished than formerly.
     - Fruitless ambassages with larger allowance than formerly. To reduce them to the ordinary of the late queen.
     - Treble increase of the privy purse. Double increase of the treasury of the chamber and great wardrobe. In all, by not using the best course of assignments, whereby the creditor is delayed in his payment, and the king surcharged in the price.
     - The exchequer-man making his best profit from the king's wants.

2. The condition of the subject in his freedom and fortune.
   - 1. Formerly in taxes by parliament.
     - Subsidies and fifteenths, spent only in defence of the states, or aid of our allies
     - Tonnage and poundage employed in guard of the seas. Loans rarely, and that employed entirely for the public. Imposition by prerogative of old custom, rated easily by the book of rates, if any, either limited to time or measure.
   - 2. Now in
     - Custom enhanced by the new books of rates. Impositions and monopolies multiplied; and this settled to continue by grants.
     - Tonnage and poundage levied, though no act of parliament, nor the seas guarded.
     - The times, the ways, and the persons, that induce these.

* This seems to refer to the anniversary thanksgiving-day for the king's delivery from the Gowry conspiracy, on the 5th of August, 1600.

† Sir Thomas Coventry. ‡ This letter is indorsed, 1625.

§ From Paris, whither the duke of Buckingham went in May, 1625, to conduct the new queen to England.

‖ This parliament met on the 18th of June, and was dissolved August 12, 1625.

3. The employment or waste of treasure.
- 1. Public treasure is to be examined.
  - What sums have been granted for the defence of the state these last three years.
  - How in particular spent and where.
  - By what advice, as by direction of
    1. The council of war appointed by parliament.
    2. By full order of the council.
    3. By any other than those, and by whom.
- 2. The king's subjects.
  - How many and when transported, or employed, as to
    1. The Palatinate.
    2. Count Mansfield.
    3. Land soldiers in the last fleet.
  - The design, where they were sent.
  - The council that directed it.
  - The success of the action, and the return of the persons in number, and the loss.

3. In ships and munition of
- 4. Our own.
  - The number and quantity employed severally.
  - The manner of embarking these ships, and what prejudice and discouragement of trade.
  - The council, that directed such employments.
  - The several successes, as at Algier, and Cadiz.
- 5. Strangers, as prize.
  - Hired by contract to serve, and how used: or
  - Taken as prize: if so,
    - How then delivered and dealt withal in the course of justice.
    - What success hath followed upon injustice done them: as the arrest of our goods in France and Germany, whereby our goods are at a stand for vent.
  - 6. Allies.
    - The number and true value of the goods.
    - The account made to his Majesty or his officers for it.
  - 7. Enemies.
    - The dismissing and discharging of any of them and the goods, namely,
      1. By whom the direction.
      2. The pretence.
      3. The value of the goods.
      4. The place whither they went.

Under this head will fall the complaint of Dover.

4. Honour of the king and state, which, as in all other, consists more *in fama* than *in re*.
- 1. How formerly we stood.
  - A nation feared, renowned, victorious.
  - It made the Netherlands there a state when it was none.
  - Recovered Henry IV. of France's kingdom, when he had nothing left but the town of Dieppe.
  - Conquered the invincible navy of Spain in 1588.
  - Took towns in Portugal in the year following, and marched 100 miles upon the firm land.
  - Fired, or brought away, the Spanish navy before Cadiz, and sacked the town.
  - Took the Spanish ships daily, and spoiled the Port-Towns of the West-Indies, never losing but one ship during all the Spanish wars.
  - Reduced the ambition of that king for a fifth monarchy to so low an ebb, that in one year he paid 2500 millions of ducats for interest, so as after he was inforced to beg treaties of peace, in low terms, at the last queen regent's hand.
  - A carriage and readiness in the people to assist their sovereign in their purse and person.
- 2. The cause of the good success then.
  - A wisdom and gravity of council, who ordered nothing but by public debate, and then assisted by the military professors, either by land or sea, of the best repute, and such only employed.
- 3. In what condition.
  - 4. Loss in reputation by the ill success.
    - In the voyage of Algier.
    - In the Palatinate.
    - In the journey with Mansfield.
    - In this last to Cadiz.*
- Condition we now stand by.
  - 5. The reasons.
    - The uncheerfulness we have either to adventure our purses or goods, occasioned by a distrust we have of the successes.
    - The want of the like courses and counsels, that were formerly used.

I could wish, that for every of these four heads there were a particular committee to examine an apt report for the houses; and the houses, upon every report, to put itself into a committee of the whole assembly; and after a full and deliberate debate, to order a model, or form, for a conference with the lords: and so, together, humbly to present unto his Majesty a remonstrance of their labour; offering withal a serious consultation and debate amongst themselves for the finding out the fittest manner both for the defence of the state and our allies, reformation of the errors, and a constant way to raise such supplies of money and necessaries, as may enable his Majesty to proceed cheerfully, and I hope assuredly, in this his glorious action, not only for himself and the state, but for all that profess the same religion, and are like to be overwhelmed in the ambition of the Spanish monarchy.

TO SIR ROBERT PYE.

Good Sir Robert Pye,

Let me entreat you to despatch that warrant of a petty sum, that it may help to bear my charge of coming up† to London. The duke, you know, loveth me, and my lord treasurer‡ standeth now towards me in very good affection and respect.§ You that are the third person in these businesses, I

* In October, 1625.

† From Gorhambury.

‡ Sir James Lord Ley, advanced from the post of lord chief justice of the king's bench, on the 20th of December, 1624, to that of lord treasurer; and created earl of Marlborough on the 5th of February, 1625-6.

§ His lordship had not been always in that disposition towards the lord viscount St. Alban; for the latter, in a letter to this lord treasurer, severely expostulated with him about his unkindness and injustice.

assure myself, will not be wanting; for you have professed and showed, ever since I lost the seal, your good will towards me. I rest

Your affectionate and assured friend, &c.

Indorsed,

To Sir Robert Pye. Gor. 1625.

TO THE EARL OF DORSET.*

My very good lord,

This gentleman, the bearer hereof, Mr. Colles by name, is my neighbour. He is commended for a civil young man. I think he wanteth no metal, but he is peaceable. It was his hap to fall out with Mr. Matthew Francis, serjeant at arms, about a toy; the one affirming, that a hare was fair killed, and the other foul. Words multiplied, and some blows passed on either side. But since the first falling out, the serjeant hath used towards him divers threats and affronts; and, which is a point of danger, sent to him a letter of challenge: but Mr. Colles, doubting the contents of the letter, refused to receive it. Motions have been made also of reconcilement, or of reference to some gentlemen of the country not partial: but the serjeant hath refused all, and now, at last, sueth him in the earl marshal's court. The gentleman saith, he distrusteth not his cause upon the hearing; but would be glad to avoid restraint, or long and chargeable attendance. Let me therefore pray your good lordship to move the noble earl † in that kind, to carry a favourable hand towards him, such as may stand with justice and the order of that court. I ever rest

Your lordship's faithful friend and servant.

Indorsed,

To E. Dorset. Gor. 1625.

SIR THOMAS COVENTRY, ATTORNEY-GENERAL, TO THE LORD VISCOUNT ST. ALBAN.

My very good lord,

I received from your lordship two letters, the one of the 23d, the other of the 28th of this month. To the former I do assure your lordship I have not heard any thing of any suits or motion, either touching the reversion of your honours, or the rent of your farm of petty writs; and, if I had heard any thing thereof, I would not have been unmindful of that caveat, which heretofore you gave in by former letters, nor slack to do you the best service I might.

The debt of Sir Nicholas Bacon resteth as it did; for in the latter end of king James's time, it exhibited a *quo warranto* in the exchequer, touching that liberty, against Sir Nicholas, which abated by his death; then another against Sir Edmund, which by the demise of the king, and by reason of the adjournment of the late term, hath had no farther proceeding, but that day is given to plead.

Concerning your other letter, I humbly thank your lordship for your favourable and good wishes to me, though I, knowing my own unaptness to so great an employment,‡ should be most heartily glad, if his Majesty had, or yet would choose, a man of more merit. But, if otherwise, humbleness and submission becomes the servant, and to stand in that station where his Majesty will have him. But as for the request you make for your servant, though I protest I am not yet engaged by promise to any, because I hold it too much boldness towards my master, and discourtesy towards my lord keeper,§ to dispose of places while he had the seal: yet in respect I have some servants, and some of my kindred, apt for the place you write of, and have been already so much importuned by noble persons, when I lately was with his Majesty at Salisbury, as it will be hard for me to give them all denial; I am not able to discern how I can accommodate your servant; though for your sake, and in respect of the former knowledge myself have had of the merit and worth of the gentleman, I should be most ready and willing to perform your desire, if it were in my power. And so, with remembrance of my service to your lordship, I remain,

At your lordship's commandment,

THO. COVENTRY.

Kingsbury, October 29, 1625.

To the right honourable and my very good lord the viscount St. Alban.

TO MR. ROGER PALMER.

Good Mr. Roger Palmer,

I thank God, by means of the sweet air of the country, I have obtained some degree of health. Sending to the court, I thought I would salute you: and I would be glad, in this solitary time and place, to hear a little from you how the world goeth, according to your friendly manner heretofore.

Fare ye well most heartily.

Your very affectionate and assured friend,

FR. ST. ALBAN.

Gorhambury, Oct. 29, 1625.

TO THE DUKE OF BUCKINGHAM.

Excellent lord,

I could not but signify unto your Grace my rejoicing, that God hath sent your Grace a son and

* Sir Edward Sackville succeeded to that title on the death of his brother Richard, March 28, 1624.

† Arundel, earl marshal.

‡ That of the great seal, of which Sir Thomas Coventry was three days after made lord keeper, on the 1st of November, 1625.

§ Bishop Williams, who had resigned the great seal on the 25th of October, 1625, to Sir John Suckling, who brought his Majesty's warrant to receive it, dated at Salisbury on the 23d of that month.

heir,* and that you are fortunate as well in your house, as in the state of the kingdom. These blessings come from God; as I do not doubt but your Grace doth, with all thankfulness, acknowledge, vowing to him your service. Myself, I praise his Divine Majesty, have gotten some step into health. My wants are great; but yet I want not a desire to to do your Grace service: and I marvel, that your Grace should think to pull down the monarchy of Spain without my good help. Your Grace will give me leave to be merry, however the world goeth with me. I ever rest

Your Grace's most faithful and obliged servant, &c.

I wish your Grace a good new year.

TO SIR HUMPHREY MAY, CHANCELLOR OF THE DUCHY OF LANCASTER.

Good Mr. Chancellor,

I did wonder what was become of you, and was very glad to hear you were come to court; which, methinks, as the times go, should miss you as well as I.

I send you another letter, which I wrote to you of an old date, to avoid repetition; and I continue my request then to you, to sound the duke of Buckingham's good affection towards me, before you do move him in the particular petition. Only the present occasion doth invite me to desire, that his Grace would procure me a pardon of the king of the whole sentence. My writ for parliament I have now had twice before the time, and that without any express restraint not to use it. It is true, that I shall not be able, in respect of my health, to attend in parliament; but yet I might make a proxy. Time hath turned envy to pity; and I have a long cleansing week of five years expectation and more. Sir John Bennet hath his pardon; and my lord of Somerset hath his pardon, and, they say, shall sit in parliament. My lord of Suffolk cometh to parliament, though not to council. I hope I deserve not to be the only outcast.

God keep you. I ever rest

Your most affectionate friend to do you service.

I wish you a good new year.

Indorsed,

To the chancellor of the Duchy. Gor. 1625.

TO THE MARQUIS D'EFFIAT, THE FRENCH AMBASSADOR.

Mons. l'ambassadeur, mon fils,

Vous scavez que le commencement est la moitié du fait. Voyla pourquoy je vous ay escrit ce petit mot de lettre, vous priant de vous souvenir de vostre noble promesse de me mettre en la bonne grace de nostre tres-excellente Royne, & m'en faire recevoir quelque gracieuse demonstration. Vostre Excellence prendra aussi, s'il vous plaist, quelque occasion de prescher un peu à mon avantage en l'oreille du Duc de Buckingham en general. Dieu vous ayt en sa saincte garde.

Vostre tres-affectionné et tres humble serviteur,

FR. ST. ALBAN.

January 18, 1625.

The following letters, wanting both date and circumstances to determine such dates, are placed here together.

TO THE LORD TREASURER.†

It may please your honourable lordship,

I account myself much bound to your lordship for your favour showed to Mr. Higgins upon my commendations about Pawlet's wardship; the effect of which your lordship's favour, though it hath been intercepted by my lord deputy's suit, yet the signification remains: and I must in all reason consent and acknowledge, that your lordship had as just and good cause to satisfy my lord deputy's request, as I did think it unlikely, that my lord would have been suitor for so mean a matter.

So this being to none other end but to give your lordship humble thanks for your intended favour, I commend your lordship to the preservation of the Divine Majesty.

From Gray's-Inn.

TO SIR FRANCIS VERE.‡

Sir,

I am to recommend to your favour one Mr. John Ashe, as to serve under you, as agent of your company: whose desire how much I do affect, you may perceive if it be but in this, that myself being no farther interested in you, by acquaintance or deserving, yet have intruded myself into this commendation; which, if it shall take place, I shall by so much the more find cause to take it kindly, by how much I find less cause in myself to take upon me the part of a mover or commender towards you, whom nevertheless I will not so far estrange myself from, but that in a general or mutual respect, incident to persons of our qualities and service, and not without particular inducements of friendship, I might, without breaking decorum, offer to you a request of this nature, the rather honouring you so much for your virtues, I would gladly take occasion to be beholden to you; yet no more gladly than to have occasion to do you any good office. And so this being to no other end, I commend you to God's goodness.

From my chamber at the

* Born November 17, 1625, and named Charles. Diary of the Life of Archbishop Laud, published by Mr. Wharton, p. 24. This son of the duke died the 16th of March, 1626-7. Ibid. p. 40.

† From the original draught in the library of Queen's college, Oxford, Arch. D. 2.

‡ Ibid.

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TO MR. CAWFEILDE.*

Sir,

I MADE full account to have seen you here this reading, but your neither coming nor sending the interr. as you undertook, I may perceive† of a wonder. And you know *super mirari cœperunt philosophari*. The redemption of both these consisteth in the vouchsafing of your coming up now, as soon as you conveniently can; for now is the time of conference and counsel. Besides, if the course of the court be held *super interrogat. judicis*, then must the interr. be ready ere the commission be sealed; and if the commission proceed not forthwith, then will it be caught hold of for farther delay. I will not, by way of admittance, desire you to send with all speed the interr. because I presume much of your coming, which I hold necessary; and accordingly, *pro more amicitiæ*, I desire you earnestly to have regard both of the matter itself, and my so conceiving. And so, &c.

Your friend particularly.

TO MY LORD MONTJOYE.‡

MY VERY GOOD LORD,

FINDING by my last going to my lodge at Twickenham and tossing over my papers, somewhat that I thought might like you, I had neither leisure to perfect them, nor the patience to expect leisure; so desirous I was to make demonstration of my honour and love towards you, and to increase your good love towards me. And I would not have your lordship conceive, though it be my manner and rule to keep state in contemplative matters, "si quis venerit nomine suo, eum recipietis," that I think so well of the collection as I seem to do: and yet I dare not take too much from it, because I have chosen to dedicate it to you. To be short, it is the honour I can do to you at this time. And so I commend me to your love and honourable friendship.

TO KING JAMES I.

MAY IT PLEASE YOUR MAJESTY,

THINKING often, as I ought, of your Majesty's virtue and fortune, I do observe, not without admiration, that those civil acts of sovereignty which are of the greatest merit, and therefore of truest glory, are by the providence of God manifestly put into your hands as a chosen vessel to receive from God, and an excellent instrument to work amongst men the best and noblest things. The highest degree of sovereign honour is to be founder of a kingdom or estate; for, as in the acts of God, the creation is more than the conservation; and as among men the birth-day is accounted the chiefest of the days of life; so, to found a kingdom is more worthy, than to augment, or to administer the same. And this is an honour that no man can take from your Majesty, that the day of your coming to the crown of England was as the birth-day of the kingdom entire Britain.

The next degree of sovereign honour is the plantation of a country or territory, and the reduction of a nation, from waste soil and barbarous manners, to a civil population. And in this kind also your Majesty hath made a fair and prosperous beginning in your realm of Ireland.

The third eminent act of sovereignty, is to be a lawgiver, whereof he speaketh,

> "Pace data terris, animum ad civilia vertit
> Jura suum, legesque tulit justissimus author."

And another saith, "Ecquid est, quod tam proprie dici potest actum ejus, qui togatus in republica cum potestate imperioque versatur, quam lex? Quære acta Gracchi; leges Sempronias proferentur: quære Syllæ, Corneliæ quid? Cæcii Pompeii tertius consulatus in quibus actis consistit? Nempe legibus. A Cæsare ipso si quæreres quidnam egisset in urbe et toga; leges multas se respondeat et præclaras tulisse."

TO THE KING.

IT MAY PLEASE YOUR MAJESTY,

A FULL heart is like a full pen: it can hardly make any distinguished work. The more I look upon my own weakness, the more I must magnify your favours; and the more I behold your favours, the more I must consider mine own weakness. This is my hope, that God, who hath moved your heart to favour me, will write your service in my heart. Two things I may promise; for, though they be not mine own, yet they are surer than mine own, because they are God's gifts; that is, integrity and industry. And therefore, whensoever I shall make my account to you, I shall do it in these words, *ecce tibi lucrifeci*, and not *ecce mihi lucrifeci*. And for industry, I shall take to me, in this procuration, not Martha's part, to be busied in many things, but Mary's part, which is to intend your service; for the less my abilities are, the more they ought to be contracted *ad unum*. For the present, I humbly pray your Majesty to accept my most humble thanks and vows as the forerunners of your service, which I shall always perform with a faithful heart.

Your Majesty's most obedient servant,

FR. BACON.

* From the original draught in the library of Queen's college, Oxford, Arch. D. 2.
† Query whether perceive.

‡ From the original draught in the library of Queen's College, Oxford, Arch. D. 2.

TO THE KING'S MOST EXCELLENT MAJESTY.

The humble petition of the Lord VERULAM, *Viscount* ST. ALBAN.

THAT whereas your supplicant, for reward of full sixteen years' service in the painfullest places of your kingdom, how acceptable or useful, he appealeth to your Majesty's gracious remembrance, had of your Majesty's gracious bounty two grants, both under the great seal of England; the one a pension of 1200*l.* the other a farm of the petty writs, about 600*l. per annum* in value, which was long since assigned to your supplicant's wife's friends in trust for her maintenance: which two grants are now the substance of your supplicant's and his wife's means, and the only remains of your Majesty's former favours, except his dignities, which without means are but burdens to his fortunes:

So it is, most gracious sovereign, that both these are now taken from him; the pension stopped, the lease seized: the pension being, at this present, in arrear 500*l.* and at Michaelmas 800*l.* is stopped, as he conceiveth, upon the general stop of pensions; though he hopeth assuredly, that your Majesty, that looketh with the gracious eye of a king, and not the strict eye of an officer, will behold his case as especial, if not singular. The latter was first seized for satisfaction of a private gentleman, your supplicant unheard, and without any shadow of a legal course. Since it hath been continued, in respect of a debt to your Majesty for the arrear of rent upon the same farm, amounting to 1500*l.* But whereas your Majesty's farmers debtors for their rents, and other your debtors, have usually favours, sometimes of stallment, sometimes upon equity, if their farms decay, or at least when they are called upon, have days given, put in security, or the like; your supplicant was never so much as sent to, no warnings to provide, no days given, but put out of possession suddenly by a private and peremptory warrant, without any spark of those favours used to the meanest subjects. So that now your supplicant having left little or no annual income, is in great extremity, having spread the remnant of his former fortunes in jewels and plate, and the like, upon his poor creditors, having scarce left bread to himself and family.

In tender consideration whereof, your supplicant, and overthrown servant, doth implore your Majesty's grace and goodness felt by so many, known to all, and whereof he cannot live to despair: first, in general, that your Majesty will not suffer him, upon whose arm your princely arm hath so often been, when you presided in council, so near he was, and who hath borne your image in metal, but more in his heart, utterly to perish; or, which is worse, to live in his last days in an abject and sordid condition. Next, in particular, that your Majesty would be graciously pleased to take present order to have the arrear of his pension paid, and likewise that for the future it may be settled, that he be not at courtesy, nor to beg at that door, which is like enough to be shut against him. Secondly, that the possession of his wife's lease may be restored to her: and this bit of arrear to your Majesty, that you will be pleased to remit it, according to your Majesty's gracious and pious promise, when you admitted him to you in the night of his troubles, which was, that you would not meddle with his estate, but to mend it. In the restoring the possession, you shall remove your hand of arms; in the remitting of the rent, you shall extend your hand of grace: and if he be not worthy of so much favour, as to have it released yet, that it may be respited for some good time, that he may make somewhat of that his father left him, and keep himself out of want, in such sort, that your supplicant, that aspireth but to live to study, be not put to study to live. And he, according to his bounden duty, shall not intermit, as he ever hath done, to pray to God for your Majesty's health and happiness.

TO THE MARQUIS OF BUCKINGHAM.

MY VERY GOOD LORD,

I HEAR yesterday was a day of very great honour to his Majesty, which I do congratulate. I hope also his Majesty may reap honour out of my adversity; as he hath done strength out of my prosperity. His Majesty knows best his own ways; and for me to despair of him, were a sin not to be forgiven. I thank God I have overcome the bitterness of this cup by christian resolution; so that worldly matters are but mint and cumin.

God ever preserve you.

Indorsed,

To my Lord Buckingham after my troubles.

TO THE MARQUIS OF BUCKINGHAM.

MY VERY GOOD LORD,

I THOUGHT it my duty to take knowledge to his Majesty, from your lordship, by the enclosed, that, much to my comfort, I understand his Majesty doth not forget me nor forsake me, but hath a gracious inclination to me, and taketh care of me; and to thank his Majesty for the same. I perceive, by some speech, that passed between your lordship and Mr. Meantys, that some wretched detractor hath told you, that it were strange I should be in debt; for that I could not but have received a hundred thousand pounds gift since I had the seal; which is an abominable falsehood. Such tales as these made St. James say, that the "tongue is a fire," and "itself fired from hell," whither, when these tongues shall return, they will "beg a drop of water to cool them." I praise God for it, I never took penny for any benefice or ecclesiastical living; I never took penny for releasing any thing I stopped at the seal; I never took penny for any commission, or things of that nature; I never shared with any servant for any second or inferior profit. My offences have

myself recorded, wherein I studied, as a good confessant, guiltiness, and not excuse; and therefore I hope it leaves me fair to the king's grace, and will turn many men's hearts to me.

As for my debts, I showed them your lordship, when you saw the little house and the farm, besides a little wood or desert, which you saw not.

If these things were not true, although the joys of the penitent be sometimes more than the joys of the innocent, I could not be as I am.

God bless you, and reward you for your constant love to me. I rest, &c.

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*Draught of a letter to the Marquis of Buckingham not sent.**

My lord,

I say to myself, that your lordship hath forsaken me; and I think I am one of the last that findeth it, and in nothing more, than that twice at London your lordship would not vouchsafe to see me, though the latter time I begged it of you. If your lordship lack any justification about York-house, good my lord, think of it better; for I assure your lordship, that motion to me was to me as a second sentence; for I conceived it sentenced me to the loss of that, which I thought was saved from the former sentence, which is your love and favour. But sure it could not be that pelting matter, but the being out of sight, out of use, and the ill offices done me, perhaps, by such as have your ear. Thus I think, and thus I speak; for I am far enough from any baseness or detracting, but shall ever love and honour you, howsoever I be

Your forsaken friend and freed servant,

FR. ST. ALBAN.

TO THE MARQUIS OF BUCKINGHAM.

My very good lord,

It is in vain to cure the accidents of a disease, except the cause be found and removed. I know adversity is apprehensive; but I fear it is too true, that now I have lost honour, power, profit, and liberty, I have, in the end, lost that, which, to me, was more dear than all the rest, which is my friend. A change there is apparent and great; and nothing is more sure, than that nothing hath proceeded from and since my troubles, either towards your lordship or towards the world, which hath made me unworthy of your undeserved favours or undesired promises. Good my lord, deal so nobly with me, as to let me know, whether I stand upright in your favour, that either I may enjoy my wonted comfort, or see my griefs together, that I may the better order them; though, if your lordship should never think more of me, yet your former favours should bind me to be

Your lordship's most obliged and faithful servant,

FR. ST. ALBAN.

* Among lord Bacon's printed letters, is one without a date, in which he complains, as in this, that he, "being twice now in London," the marquis "did not vouchsafe to see him."

TO THE MARQUIS OF BUCKINGHAM.

My very good lord,

This extreme winter hath turned, with me, a weakness of body into a state that I cannot call health, but rather sickness, and that more dangerous than felt, as whereby I am not likely to be able to wait upon your lordship, as I desired, your lordship being the person of whom I promise myself more almost than of any other; and, again, to whom, in all loving affection, I desire no less to approve myself a true friend and servant. My desire to your lordship is to admit this gentleman, my kinsman and approved friend, to explain to you my business, whereby to save farther length of letter, or the trouble of your lordship's writing back.

TO MR. TOBIE MATTHEW.

Good Mr. Matthew,

The event of the business, whereof you write, is, it may be, for the best; for seeing my lord, of himself, beginneth to come about, *quorsum* as yet? I could not in my heart suffer my lord Digby to go hence without my thanks and acknowledgments. I send my letter open, which I pray seal and deliver. Particulars I would not touch.

Your most affectionate and assured friend,

FR. ST. ALBAN.

TO MR. TOBIE MATTHEW.

Good Mr. Matthew,

When you write by pieces, it showeth your continual care; for a flush of memory is not so much; and I shall be always, on my part, ready to watch for you, as you for me.

I will not fail, when I write to the lord marquis, to thank his lordship for the message, and to name the nuntius. And, to tell you plainly, this care, they speak of, concerning my estate, was more than I looked for at this time; and it is that, which pleaseth me best. For my desires reach but to a fat *otium*. That is truth; and so would I have all men think, except the greatest: for I know patents, *absque aliquid inde reddendo*, are not so easily granted.

I pray my service to the Spanish ambassador, and present him my humble thanks for his favour. I am much his servant; and ashes may be good for somewhat. I ever rest

Your most affectionate and assured friend,

FR. ST. ALBAN.

I have sought for your little book, and cannot find it. I had it one day with me in my coach. But sure it is safe: for I seldom lose books or papers.

TO THE LORD VISCOUNT ST. ALBAN.

Most honoured lord,

I have received your great and noble token and favour of the 9th of April, and can but return the humblest of my thanks for your lordship's vouchsafing so to visit this poorest and unworthiest of your servants. It doth me good at heart, that, although I be not where I was in place, yet I am in the fortune of your lordship's favour, if I may call that fortune, which I observe to be so unchangeable. I pray hard that it may once come in my power to serve you for it; and who can tell, but that, as *fortis imaginatio generat casum*, so strange desires may do as much? Sure I am that mine are ever waiting on your lordship; and wishing as much happiness as is due to your incomparable virtue, I humbly do your lordship reverence.

Your lordship's most obliged and humble servant,

TOBIE MATTHEW.

Postsc. The most prodigious wit, that ever I knew of my nation, and of this side of the sea, is of your lordship's name, though he be known by another.

TO THE LORD ARCHBISHOP OF YORK.*

My very good lord,

I must use a better style than mine own, in saying, "Amor tuus undequaque se ostendit ex literis tuis proximis," for which I give your Grace many thanks, and so, with more confidence, continue my suit to your lordship for a lease absolute for twenty-one years of the house, being the number of years which my father and my predecessors fulfilled in it. A good fine requires certainty of term: and I am well assured, that the charge I have expended, in reparations, amounting to 1000 marks at least already, is more than hath been laid out by the tenants that have been in it since my remembrance, answerable to my particular circumstance, that I was born there, and am like to end my days there. Neither can I hold my hand, but, upon this encouragement, am like to be doing still, which tendeth to the improvement, in great measure, of the inheritance of your see by superlapidations, if I may so call it, instead of dilapidations, wherewith otherwise it might be charged.

And whereas a state for life is a certainty, and not so well seen how it wears, a term of years makes me more depending upon you and your succession.

For the providing of your lordship and your successors a house, it is part of the former covenant, wherein I desired not to be released.

So assuring myself of your grant and perfecting of this my suit; and assuring your Grace of my earnest desire and continual readiness to deserve well of you and yours chiefly, and likewise of the see in any of the causes or pre-eminences thereof, I commend your Grace to God's goodness, resting, &c.

* Dr. Tobie Matthew.

The following Papers, containing Lord Chancellor Ellesmere's *Exceptions to Sir* Edward Coke's Reports, *and Sir Edward's Answers, having never been printed, though Mr.* Stephens, *who had copied them from the Originals, designed to have given them to the public, they are subjoined here in justice to the memory of that great lawyer and judge; especially as the offence taken at his* Reports *by King* James, *is mentioned above in the Letter of the Lord Chancellor and Sir* Francis Bacon, *of October* 16, 1616, *to that King.*

TO THE KING'S MOST EXCELLENT MAJESTY.†

It may please your most excellent Majesty.

According to your Majesty's directions signified unto me by Mr. Solicitor, I called the lord chief justice before me on Thursday the 17th of this instant, in the presence of Mr. Attorney and others of your learned counsel. I did let him know your Majesty's acceptance of the few animadversions, which, upon review of his own labours, he had sent, though fewer than you expected, and his excuses other than you expected, as namely, in the prince's case, the want of the original in French, as though, if the original had been *primogenitus* in Latin, then he had not in that committed any error. I told him farther, that because his books were many, and the cases therein, as he saith, 500, your Majesty, out of your gracious favour, was pleased, that his memory should be refreshed; and that he should be put in mind of some passages dispersed in his books, which your Majesty, being made acquainted with, doth as yet distaste, until you hear his explanation and judgment concerning the same. And that out of many some few should be selected, and that at this time he should not be pressed with more, and these few not to be the special and principal points of the cases, which were judged, but things delivered by discourse, and, as it were, by expatiation, which might have been spared and forborne, without prejudice to the judgment in the principal cases.

Of this sort Mr. Attorney and Mr. Solicitor made choice of five specially, which were read distinctly to the lord chief justice. He heard them with good attention, and took notes thereof in writing, and, lest there might be any mistaking either in the declaring thereof unto him, or in his misconceiving of the same, it was thought good to deliver unto him a true copy. Upon consideration whereof, and upon advised deliberation, he did yesterday in the afternoon return unto me, in the presence of all your learned counsel, a copy of the five points before mentioned, and his answer at large in the same, which I make bold to present herewith to your Majesty, who can best discern and judge both of this little which is done, and what may be expected of the multiplicity of other cases of the like sort, if they shall be brought to farther examination. All that I have done in this hath been by your Majesty's commandment and direction, in presence of all your learned counsel, and by the special assistance and advice of your attorney and solicitor.

† From the originals.

I know obedience is better than sacrifice: for otherwise I would have been an humble suitor to your Majesty to have been spared in all service concerning the lord chief justice. I thank God, I forget not the fifth petition, *Dimitte nobis debita nostra sicut, etc.* but withal I have learned this distinction: there is, 1. *Remissio vindictæ.* 2. *Remissio pœnæ.* 3. *Remissio judicii.* The two first I am past, and have freely and clearly remitted. But the last, which is of judgment and discretion, I trust I may in christianity and good conscience retain, and not to trust too far, &c.

I must beseech your Majesty's favour to excuse me for all that I have here before written, but specially for this last needless passage; wherein I fear your Majesty will note me to play the divine, without learning, and out of season. So with my continual prayers to God to preserve your Majesty with long, healthful, and happy life, and all earthly and heavenly felicity, I rest

Your Majesty's humble and faithful subject and servant,

T. ELLESMERE, CANC.

At York-house, 22 Oct. 1616.

QUESTIONS *demanded of the Chief Justice of the King's Bench by his Majesty's commandment.*

1. Is the case of the isle of Ely, whether his lordship thinks that resolution there spoken of to be law; That a general taxation upon a town, to pay so much towards the repair of the sea-banks, is not warranted to be done by the commissioners of sewers; but that the same must be upon every particular person, according to the quantity of his land, and by number of acres and perches; and according to the portion of the profit, which every one hath there.*

2. In Darcy's case, whether his lordship's judgment be as he reporteth it to be resolved; that the dispensation or licence of queen Elizabeth to Darcy to have the sole importation of cards, notwithstanding the statute, 3 E. 4, is against law.†

3. In Godfrey's case, what he means by this passage, Some courts cannot imprison, fine, or amerce, as ecclesiastical courts before the ordinary archdeacon, &c. or other commissioners, and such like, which proceed according to the canon or civil law.‡

4. In Dr. Bonham's case, what he means by this passage, That in many cases the common law shall control acts of parliament, and sometimes shall judge them to be merely void: For where an act of parliament is against common right and reason, the law shall control it, and adjudge it void.§

5. In Bagges's case, to explain himself where he saith, That to the court of king's bench belongs authority, not only to correct errors in judicial proceedings, but other errors and misdemeanors extrajudicial, tending to the breach of peace, oppression of subjects, or to the raising of faction, controversies, debate, or to any manner of misgovernment. So no wrong or injury can be done, but, that this shall be reformed or punished by due course of law.‖

I received these questions the 17th of this instant October, being Thursday; and this 21st day of the same month I made these answers following:

The humble and direct Answer to the Questions upon the Case of the Isle of Ely.

THE statute of the 23 H. VIII. cap. 5, prescribeth the commission of sewers to be according to the manner, form, tenure, and effect hereafter ensuing, namely, to inquire by the oath of men, &c. who hath any lands or tenements, or common of pasture, or hath, or may have, any loss, &c. and all these persons to tax, distrain, and punish, &c. after the quantity of lands, tenements, and rents, by the number of acres and perches, after the rate of every person's portion or profit, or after the quantity of common of pasture, or common of fishing, or other commodity there, by such ways and means, and in such manner and form, as to you, or six of you, shall seem most convenient.

The commissioners of sewers within the isle of Ely did tax Fendrayton, Samsey, and other towns generally, namely, one entire sum upon the town of Fendrayton, another upon Samsey, &c. The lords of the council wrote to myself, the chief justice of the common pleas, and unto justice Daniel and justice Foster, to certify our opinions, whether such a general taxation were good in law. Another question was also referred to us, whereof no question is now made: and as to this question we certified, and so I have reported as followeth, That the taxation ought to have these qualities: 1. It ought to be according to the quantity of lands, tenements, and rents, and by number of acres and perches. 2. According to the rate of every person's portion, tenure or profit, or of the quantity of common of pasture, fishing, or other commodity, wherein we erred not, for they be the very words and texts of the law, and of the commission. Therefore we concluded, that the said taxation of an entire sum in gross upon town is not warranted by their commission, &c. And being demanded by your Majesty's commandment, whether I do think the said resolution concerning the said general taxation to be law, I could have wished, that I could have heard council learned again on both sides, as I and the other judges did, when we resolved this point: and now being seven years past since the said resolution, and by all this time I never hearing any objection against it, I have considered of this case, as seriously as I could within this short time, and without conference with any; and mine humble answer is, That for any thing that I can conceive to the contrary, I remain still of my former opinion, and have, 1. As I take it, the express text and meaning of the law to warrant mine opinion. 2. Seeing that one town is of greater value, and subject to more danger, than another, the general taxation

* Lib. 10. † Lib. 11. ‡ Ibid. § Lib. 8. ‖ Lib. 11.

of a town cannot, as I take it, be just, unless the particular lands, &c. and loss be known, for the total must rise upon the particulars; and if the particulars be known, then may the taxations be in particular. As it ought, as I take it, to be according to the express words of the act and commission.

3. The makers of the act did thereby provide, That every man should be equally charged, according to his benefit or loss; but if the general taxations should be good, then might the entire tax set upon the town be levied of any one man or some few men of that town; which should be unequal, and against the express words of the act and commission; and if it should be in the power of their officer to levy the whole taxation upon whom he will, it would be a means of much corruption and inconvenience; all which the makers of the act did wisely foresee by the express words of the act.

4. If the taxation be in particular, according to the number of acres, &c. which may easily be known, it may, as I take it, be easily done.

5. It was not only the resolution of the said three judges, but it hath been ruled and adjudged by divers other judges in other rates accordingly.

All which notwithstanding I most humbly submit myself herein to your Majesty's princely censure and judgment.

EDW. COKE.

The humble and direct Answer to the Questions upon D'ARCY'S *Case.*

THE statute of 3 of E. 4. cap. 4. at the humble petition of the card-makers, &c. within England, prohibiteth, amongst other things, the bringing into the realm of all foreign playing cards upon certain penalties. Queen Elizabeth, in the fortieth year of her reign, granted to Sir Ed. D'Arcy, his executors, deputies, and assigns, for twenty-one years, to have the sole making of playing cards within the realm, and the sole importation of foreign playing cards: and that no other should either make any such cards, within the realm, or import any foreign cards, but only the said Sir Ed. D'Arcy, his executors, deputies, and assigns, notwithstanding the said act.

The point concerning the sole making of cards within the realm is not questioned; the only question now is concerning the sole importation.

It was resolved, that the dispensation or licence to have the sole importation or merchandizing of cards, without any limitation or stint, is utterly against the law.

And your Majesty's commandment having been signified to me, to know, whether my judgment be, as I report it to be resolved, in most humble manner I offer this answer to your Majesty; That I am of opinion, that without all question the late queen by her prerogative might, as your Majesty may, grant licence to any man to import any quantity of the said manufacture whatsoever, with a *non obstante* of the said statute: and for proof thereof I have cited about fifteen book cases in my report of this case. And the first of those book cases is the 2 H. 7. fol. 6. by the which it appeareth, that if a penal statute should add a clause, That the king should not grant any dispensation thereof, *non obstante* the statute; yet the king, notwithstanding that clause of restraint, might grant dispensations at his pleasure with a *non obstante* thereof. Therefore seeing this royal prerogative and power to grant dispensations to penal laws is so incident and inseparable to the crown, as a clause in an act of parliament cannot restrain it, I am of opinion, that when the late queen granted to Sir Ed. D'Arcy to have the sole importation of this manufacture without limitation, and that no other should import any of the same during 21 years, that the same was not of force either against the late queen, or is of force against your Majesty: for if the said grant were of force, then could not the late queen or your Majesty, during the said term, grant any dispensation of this statute concerning this manufacture to any other for any cause whatsoever; which is utterly against your Majesty's inseparable prerogative, and consequently utterly void; which falleth not out where the licence hath a certain limitation of quantity or stint; for there the crown is not restrained to grant any other licence.

And therefore where it was resolved by Popham chief justice, and the court of king's bench, before I was a judge, That the said dispensation or licence to have the sole importation and merchandizing of cards without any limitation or stint, should be void, I am of the same opinion; for that it is neither against your Majesty's prerogative, nor power in granting of such dispensations; but tendeth to the maintenance of your Majesty's prerogative royal, and may, if it stand with your Majesty's pleasure, be so explained.

Wherein in all humbleness I submit myself to your Majesty's princely censure and judgment.

EDW. COKE.

The humble and direct Answer to the Question rising upon GODFREY'S *Case.*

SOME courts cannot imprison, fine, nor amerce, as ecclesiastical courts holden before the ordinary, archdeacon, or their commissaries and such like, which proceed according to the common or civil law.

And being commanded to explain what I meant by this passage, I answer, that I intended only those ecclesiastical courts there named and such like, that is, such like ecclesiastical courts, as peculiars, &c.

And within these words, (And such like,) I never did nor could intend thereby the high commission; for that is grounded upon an act of parliament, and the king's letters patents under the great seal. Therefore these words *commissaries* and *such like* cannot be extended to the high commission, but, as I have said, to inferior ecclesiastical courts.

Neither did I thereby intend the court of the admiralty; for that is not a like court to the courts before named; for those be ecclesiastical courts, and this is temporal. But I referred the reader to the

case in Brooks's Abridgement, pla. 77, where it is that, if the admiral, who proceeded by the civil law, hold plea of any thing done upon the land, that it is void and *coram non judice*; and that an action of trangressions in that case doth lie, as by the said case it appeareth. And therefore that in that case he can neither fine nor imprison. And therewith agree divers acts of parliament; and so it may be explained, as it was truly intended.

All which I most humbly submit to your Majesty's princely judgment.

EDW. COKE.

The humble and direct Answer to the Fourth Question arising out of Dr. BONHAM'S *Case.*

In this case I am required to deliver what I mean by this passage therein, That in many cases the common law shall control acts of parliament; and sometimes shall adjudge them to be merely void; for where an act of parliament is against common right and reason, the common law shall control it, and adjudge it to be void.

The words of my report do not import any new opinion, but only a relation of such authorities of law, as had been adjudged and resolved in ancient and former times, and were cited in the argument of Bonham's case; and therefore the words of my book are these, "It appeareth in our books, that in many cases the common law shall control acts of parliament, and sometimes shall adjudge them to be utterly void; for when an act of parliament is against common right and reason, or repugnant or impossible to be performed, the common law shall control this, and adjudge such act to be void." And therefore in 8 E. 3. 30, Thomas Tregor's case, upon the statute of West. 2. cap. 38, *et artic. super cart.* cap. 9, Herle saith, Some statutes are made against law and right, which they, that made them, perceiving, would not put them in execution.

The statute of H. 2. cap. 21, gives a writ of "Cessavit hæredi petenti super hæredem tenent et super eos, quibus alienatum fuerit hujusmodi tenementum." And yet it is adjudged in 33 E. 3. *tit. cessavit* 42, where the case was, Two co-partners, lords and tenant by fealty and certain rent; the one co-partner hath issue, and dieth, the aunt and the niece shall not join in a *cessavit*, because that the heir shall not have a *cessavit*, for the cessor in his ancestor's time. Fitz. N. B. 209, F. and herewith accords Plow. com. 110. And the reason is, because that in a *cessavit*, the tenant, before judgment, may render the arrearages and damages, &c. and retain his land: and this he cannot do, when the heir bringeth a *cessavit* for the cessor in the time of his ancestor; for the arrearages incurred in the life of his ancestor do not belong to the heir.

And because that this is against common right and reason, the common law adjudges the said act of parliament as to this point void. The statute of Carlile made *anno* 35 E. 1. enacteth, That the order of the Cistertians and Augustins have a convent and common seal; that the common seal shall be in the custody of the prior, which is under the abbot, and four others of the discreetest of the house; and that any deed sealed with the common seal, that is not so kept, shall be void. And the opinion in the 27 H. 6. *tit.* Annuity 41, was, that this statute is void; for the words of the book are, it is impertinent to be observed: for the seal being in their custody, the abbot cannot seal any thing with it; and when it is in the hands of the abbot, it is out of their custody *ipso facto*. And if the statute should be observed, every common seal might be defeated by a simple surmise, which cannot be. Note, reader, the words of the said statute made at Carlisle, *anno* 35 E. 1. which is called *Statutum Religiosorum*, are these: "Et insuper ordinavit dominus rex et statuit, quod abbates Cistercienses et Præmonstratenses ordinum religiosorum, etc. de cetero habeant sigillum commune, et illud in custodia prioris monasterii seu domus et quatuor de dignioribus et discretioribus ejusdem loci conventus sub privato sigillo abbatia ipsius loci custod. deponend. Et si forsan aliqua scripta obligationum, donationum, emptionum, venditionum, alienationum, seu aliorum quorumcunque contractuum alio sigillo quam tali sigillo communi sicut præmittitur custodit, inveniatur amodo, sigillata pro nullo penitus habeantur, omnique careant firmitate.' So the statute of 1 E. 6. cap. 14, gives chanteries, &c. to the king, saving to the donor, &c. all such rents, services, &c. and the common law controls this, and adjudges it void as to the services; and the donor shall have the rent as a rent-seck to distrain of common right; for it should be against common right and reason, that the king should hold of any, or do suit to any of his subjects, 14 Eliz. Dyer, 313. And so it was adjudged Mich. 16 and 17 Eliz. in the common place in Stroud's case. So if any act of parliament give to any to hold, or to have connsance of all manner of pleas before him arising within his manor of D. yet he shall hold no plea whereunto himself is a party, for *Iniquum est aliquem suæ rei esse judicem.*

Which cases being cited in the argument of this case, and I finding them truly vouched, I reported them in this case, as my part was, and had no other meaning than so far as those particular cases there cited do extend unto. And therefore the beginning is, It appeareth in our books, &c. And so it may be explained, as it was truly intended.

In all which I most humbly submit myself to your Majesty's princely censure and judgment.

EDW. COKE.

The humble and direct Answer to the last Question arising upon BAGG'S *Case.*

It was resolved, that to this court of the king's bench belongeth authority not only to correct errors in judicial proceedings, but other errors and misdemeanors tending to the breach of the peace, or oppression of the subjects, or to the raising of faction or other misgovernment: so that no wrong or

injury either public or private can be done, but it shall be reformed and punished by law.

Being commanded to explain myself concerning these words, and principally concerning this word, *misgovernment;*

I answer, that the subject-matter of that case concerned the misgovernment of the mayors and other the magistrates of Plymouth.

And I intended for the persons the misgovernment of such inferior magistrates for the matters in committing wrong or injury, either public or private, punishable by law, and therefore the last clause was added, "And so no wrong or injury, either public or private, can be done, but it shall be reformed and punished by law;" and the rule is "Verba intelligenda sunt seeundum subjectam materiam."

And that they and other corporations might know, that factions and other misgovernments amongst them, either by oppression, bribery, unjust disfranchisements, or other wrong or injury, public or private, are to be redressed and punished by law, it was so reported.

But if any scruple remains to clear it, these words may be added, "by inferior magistrates;" and so the sense shall be by faction or misgovernment of inferior magistrates, so as no wrong or injury, &c.

All which I most humbly submit to your Majesty's princely judgment.

EDW. COKE.

May it please your lordship,

Above a year past, in my late lord chancellor's time, information was given to his Majesty, that I having published in eleven works or books of Reports, containing above 600 cases one with another, had written many things against his Majesty's prerogative. And I being by his Majesty's gracious favour called thereunto, all the exceptions, that could be taken to so many cases in so many books, fell to five, and the most of them too were by passages in general words; all which I offered to explain in such sort, as no shadow should remain against his Majesty's prerogative, as in truth there did not; which whether it were related to his Majesty, I know not. But thereupon the matter hath slept all this time; and now the matter, after this ever blessed marriage, is revived, and two judges are called by my lord keeper to the former, that were named. My humble suit to your lordship is, that if his Majesty shall not be satisfied with my former offer, viz. by advice of the judges to explain and publish as is aforesaid those five points, so as no shadow may remain against his prerogative; that then all the judges of England may be called hereunto. 2. That they may certify also what cases I have published for his Majesty's prerogative and benefit, for the good of the church, and quieting of men's inheritances, and good of the commonwealth; for which purpose I have drawn a minute of a letter to the judges, which I assure myself your lordship will judge reasonable; and so reposing myself upon your lordship's protection I shall ever remain

Your most bounden servant,

EDW. COKE.

Superscribed,

*To the Right Honourable his singular good Lord, the Earl of Buckingham, of his Majesty's Privy Council.**

The Letter to the Judges.

Whereas in the time of the late lord chancellor intimation was given unto us, that divers cases were published in Sir Edward's Coke's Reports, tending to the prejudice of our prerogative royal; whereupon we caring for nothing more, as by our kingly office we are bounden, than the preservation of prerogative royal, referred the same; and thereupon, as we are informed, the said Sir Edward Coke being called thereunto, the objections were reduced to five only, and most of them consisting in general terms; all which Sir Edward offered, as we are informed, to explain and publish, so as no shadow might remain against our prerogative. And whereas of late two other judges are called to the others formerly named. Now our pleasure and intention being to be informed of the whole truth, and that right be done to all, do think it fit, that all the judges of England, and barons of the exchequer, who have principal care of our prerogative and benefit, do assemble together concerning the discussing of that, which, as is aforesaid, was formerly referred; and also what cases Sir Edward Coke hath published to the maintenance of our prerogative and benefit, for the safety and increase of the revenues of the church, and for the quieting of men's inheritances, and the general good of the commonwealth: in all which we require your advice and careful considerations; and that before you make any certificate to us you confer with the said Sir Edward, so as all things may be the better cleared.

To all the Judges of England, and Barons of the Exchequer.

* There is no date to this letter, but I conceive it written in October or November, 1617. *Note* by Mr. Stephens.

THE LAST WILL

OF

FRANCIS BACON, VISCOUNT ST. ALBAN.

First, I bequeath my soul and body into the hands of God by the blessed oblation of my Saviour; the one at the time of my dissolution, the other at the time of my resurrection. For my burial, I desire it may be in St. Michael's church, near St. Alban's: there was my mother buried, and it is the parish church of my mansion-house of Gorhambury, and it is the only christian church within the walls of old Verulam. I would have the charge of my funeral not to exceed three hundred pounds at the most.

For my name and memory I leave it to men's charitable speeches, and to foreign nations, and the next ages. But, as to that durable part of my memory, which consisteth in my works and writings, I desire my executors, and especially Sir John Constable and my very good friend Mr. Bosvile, to take care that of all my writings, both of English and of Latin, there may be books fair bound and placed in the king's library, and in the library of the university of Cambridge, and in the library of Trinity College, where myself was bred, and in the library of Bennett College, where my father was bred, and in the library of the university of Oxonford, and in the library of my lord of Canterbury, and in the library of Eaton.

Also, whereas I have made up two register-books, the one of my orations or speeches, the other of my epistles or letters, whereof there may be use; and yet because they touch upon business of state, they are not fit to be put into the hands but of some counsellor, I do devise and bequeath them to the right honourable my very good lord bishop of Lincoln, and the chancellor of his Majesty's duchy of Lancaster. Also I desire my executors, especially my brother Constable, and also Mr. Bosvile, presently after my decease, to take into their hands all my papers whatsoever, which are either in cabinets, boxes, or presses, and them to seal up until they may at their leisure peruse them.

I give and bequeath unto the poor of the parishes where I have at any time rested in my pilgrimage, some little relief according to my poor means: to the poor of St. Martin in the Fields, where I was born, and lived in my first and last days, forty pounds; to the poor of St. Michael's near St. Alban's, where I desire to be buried, because the day of death is better than the day of birth, fifty pounds; to the poor of St. Andrew's in Holborn, in respect of my long abode in Grays-Inn, thirty pounds; to the poor of the abbey church parish in St. Alban's, twenty pounds; to the poor of St. Peter's there, twenty pounds; to the poor of St. Stephen's there, twenty pounds; to the poor of Redborn, twenty pounds; to the poor of Hempstead, where I heard sermons and prayers to my comfort in the time of the former great plague, twenty pounds; to the poor of Twickenham, where I lived some time at Twickenham Park, twenty pounds. I intreat Mr. Shute, of Lombard-street, to preach my funeral sermon, and to him in that respect I give twenty pounds; or if he cannot be had, Mr. Peterson, my late chaplain, or his brother.

Devises and legacies to my wife: I give, grant, and confirm to my loving wife, by this my last will, whatsoever hath been assured to her, or mentioned or intended to be assured to her by any former deed, be it either my lands in Hertfordshire, or the farm of the seal, or the gift of goods, in accomplishment of my covenants of marriage; and I give her also the ordinary stuff at Gorhambury, as wainscot tables, stools, bedding, and the like (always reserving and excepting the rich hangings with their covers, the table-carpets, and the long cushions, and all other stuff which was or is used in the long gallery; and also a rich chair, which was my niece Cæsar's gift, and also the armour, and also all tables of marble and towch). I give also to my wife my four coach geldings, and my best caroache, and her own coach mares and caroache; I give also and grant to my wife the one half of the rent which was reserved upon Read's lease for her life; which rent although I intended to her merely for her better maintenance while she lived at her own charge, and not to continue after my death; yet because she has begun to receive it, I am content to continue it to her: and I conceive by this advancement, which first and last I have left her, besides her own inheritance, I have made her of competent abilities to maintain the estate of a viscountess, and give sufficient tokens of my love and liberality towards her; for I do reckon, and that with the least, that Gorhambury and my lands in Hertfordshire will be worth unto her seven hundred pounds *per annum*, besides woodfells, and the leases of the houses, whereof five hundred pounds *per annum* only I was tied unto by covenants upon marriage; so as the two hundred pounds and better was mere benevolence; the six hundred pounds *per annum* upon the farm of the writs, was likewise mere benevolence; her own inheritance also, with that she purchased with part of her portion, is two hundred pounds *per annum* and better, besides the wealth she hath in jewels, plate, or otherwise, wherein I was never strait-handed. All which I here set down, not because I think it too much, but because others may not think it less than it is.

Legacies to my friends: I give unto the right honourable my worthy friend the marquis Fiatt, late lord ambassador of France, my books of orizons or psalms curiously rhymed; I give unto the right honourable my noble friend Edward earl of Dorset, my ring, with the crushed diamond, which the king that now is gave me when he was prince; I give unto my right honourable friend the lord Cavendish, my casting-bottle of gold; I give to my brother Constable all my books, and one hundred pounds to be presented to him in gold; I give to my sister Constable some jewels to be bought for her, of the value of fifty pounds; I give to Nall, her daughter, some jewels, to be bought for her, of the value of furty pounds; I give to my lady Cooke some jewels, to be bought for her, of the value of fifty pounds; and to her daughter, Ann Cooke, to buy her a jewel, forty pounds; and to her son, Charles, some little jewel, to the value of thirty pounds. I will also, that my executors sell my chambers in Gray's-Inn, which, now the lease is full, I conceive may yield some three hundred pounds; one hundred pounds for the ground story, and two hundred pounds for the third and fourth stories; which money, or whatsoever it be, I desire my executors to bestow for some little present relief, upon twenty-five poor scholars in both universities, fifteen in Cambridge, and ten in Oxford. I give to Mr. Thomas Meautys some jewel to be bought fnr him, of the value of fifty pounds, and my foot-clnth horse. I give to my ancient good friend, Sir Tobie Matthew, some ring, to be bought for him, nf the value of thirty pounds. I give to my very good friend, Sir Christopher Darey, some ring, to be bought for him, of the value of thirty pounds. I give to Mr. Henry Percy one hundred pounds. I give to Mr. Henry Goodricke forty pounds. I give to my godson, Francis Lowe, son of Humphrey Lowe, one hundred and fifty pounds. I give to my godson, Francis Hatcher, son of Mr. William Hatcher, one hundred pounds. I give to my godson, Francis Fleetwood, son of Henry Fleetwood, Esq. fifty pounds. I give to my godson, Philips, son of auditor Philips, twenty pounds. I give to every of my exeentors a piece of plate of thirty pounds value.

Legacies to my servants now, or late servants: I give to my servant, Robert Halpeny, four hundred pounds, and the one half of my provisions of hay, firewood, and timber, which shall remain at the time of my decease. I give to my servant, Stephen Paise, three hnndred and fifty pounds, and my bed with the appurtenances, bed-linen, and apparel-linen, as shirts, pillow-biers, sheets, caps, handkerchiefs, &c. I give to my servant, Wood, three hundred and thirty pounds, with all my apparel, as doublets, hose; and to his wife, ten pounds. I give to my late servant, Francis Edney, two hundred pounds, nnd my rich gown. I give to my ancient servant, Trnughton, one hundred pounds. I give to my chaplain, Dr. Rawleigh, one hnndred pounds. I give to my ancient servant, Welles, one hundred pounds. I give to my ancient servant, Fletcher, one hundred pounds; and to his brother ten pounds; and if my servant Fletcher be dead, then the whole to his brother. I give to my wife's late waiting-gentlewoman, Mrs. Wagstaffe, one hundred pounds. I give to Morrice Davis une hundred pounds. I give to old John Bays one hundred pounds. I give to my ancient servant, Woder, threescore and ten pounds. I give to my ancient servant, Guilman, threescure pounds. I give to my ancient servant, Faldo, forty pounds. I give to London, my eoachman, forty pounds. I give to Harsnep, my groom, forty pounds. I give to Abraham, my footman, forty pounds. I give to Smith, my bailiff, and his wife, forty pounds. I give to my nncient servant, Bowes, thirty pounds. I give to my servant, Atkins, thirty pounds. I give to old Thomas Gotherum, who was bred with me from a child, thirty pounds. I give to my servant, Plomer, twenty pounds. I give to Daty, my eook, twenty pounds. I give to Henry Brown twenty pounds. I give tn Richard Smith twenty pounds. I give to William Snyers ten pounds. I give to John Large twenty pounds. I give to old goodwife Smith ten pounds. I give to Peter Radford's wife five pounds. I give to every mean servant that attends me, and is not already named, five pounds.

The general devise and bequest of all my lands and goods to the perfurmnnee of my will.

Whereas by furmer assurance made to Sir John Constable, knight, my brother-in-law, and to Sir Thomas Crew and Sir Thomas Hedley, knights and serjeants at law, and some other persons now deceased, all my lands and tenements in Hertfordshire were by me conveyed in trust: and whereas of late my fine, and the whole benefit thereof, was by his Majesty's letters patents conveyed to Mr. Justice Hutton, Mr. Justice Chamberlain, Sir Francis Barneham, and Sir Thomas Crewe, knight, persons by me named in trust; I do devise by thia my will, and declare that the trust by me reposed, as well touching the said lands as upon the said letters patents, is, that all and every the said persons so trusted, shall perform all acts and assurances that by my executors, or the survivor or survivors of them, shall be thought fit and required, for the payment and satisfaction of my debts, and legacies, and performance of my will, having a chnritable care that the poorest either of my ereditors or legataries be first satisfied.

I do farther give and devise all my goods, chattels, aml debts due to me whatsoever, as well my pension of twelve hundred pounds *per annum* from the king, for certain years yet to come; as all my plate, jewels, household-stuff, goods and chnttels whatsoever, except such as by this my last will I have especially bequeathed, to my executors, for the better and more ready payment of my debts, and performance of my will.

And because I conceive there will be npon the moneys raised by sale uf my lands, leases, goods and chattels, a good round surplusage, over and above that which may serve to satisfy my debts and legacies, and perform my will, I du devise and declare, that my executors shall employ the saiul surplusage in manner and form following: that is to say, that they purchase therewith so much land of inheritance, as may erect and endow two lectures in either of the universities; one of which lectures shall be of natural philosophy, and the sciences in

general thereunto belonging; hoping that the stipends or salaries of the lectures may amount to two hundred pounds a year for either of them; and for the ordering of the said lectures, and the election of the lecturers from time to time, I leave it to the care of my executors, to be established by the advice of the lords bishops of Lincoln and Coventry and Litchfield.

Nevertheless, thus much do I direct, that none shall be lecturer if he be English, except he be master of arts of seven years standing, and that he be not professed in divinity, law, or physic, as long as he remains lecturer; and that it be without difference whether [he] be a stranger or English: and I wish my executors to consider of the precedent of Sir Henry Savil's lectures, for their better instruction.

I constitute and appoint for my executors of this my last will and testament, my approved good friend the right honourable Sir Humphrey Maye, chancellor of his Majesty's duchy of Lancaster, Mr. Justice Hutton, Sir Thomas Crewe, Sir Francis Barneham, Sir John Constable, and Sir Eubsll Thelwall; and I name and entreat to be one of my supervisors, my most noble, constant, and true friend, the duke of Buckingham, unto whom I do most humbly make this my last request, that he will reach forth his hand of grace to assist the just performance of this my will; and likewise that he will be graciously pleased for my sake to protect and help such of my good servants, as my executors shall at any time recommend to his Grace's favour: and also I do desire his Grace, in all humbleness, to commend the memory of my long-continued and faithful service unto my most gracious sovereign, who ever, when he was prince, was my patron, as I shall, who have now, I praise God, one foot in heaven, pray for him while I have breath.

And because of his Grace's great business, I presume also to name for another of my supervisors, my good friend and near ally the master of the rolls.

And I do most earnestly entreat both my executors and supervisors, that although I know well it is matter of trouble and travail unto them, yet considering what I have been, that they would vouchsafe to do this last office to my memory and good name, and to the discharge of mine honour and conscience; that all men may be duly paid their own, that my good mind by their good care may effect that good work.

Whatsoever I have given, granted, confirmed, or appointed to my wife, in the former part of this my will, I do now, for just and great causes, utterly revoke and make void, and leave her to her right only.

I desire my executors to have special care to discharge a debt by bond, now made in my sickness to Mr. Thomas Meautys, he discharging me fully towards Sir Robert Duwglass, and to procure Sir Robert Dowglass his patent to be delivered to him.

FR. ST. ALBAN.

Published the nineteenth day of December, 1625, in the presence of

W. RAWLEY, RO. HALPENY,
STEPHEN PAISE, WILL. ATKINS,
THOMAS KENT, EDWARD LEGGE.

Decimo tertio die mensis Julii anno Domini millessimo sexcentesimo vicesimo septimo emanavit commissio domino Roberto Rich militi, supremæ curiæ cancellariæ magistror' uni, et Thomæ Meautys armigero, creditoribus honorandi viri domini Francisci Bacon militis, domini Verulam, vice-comitis Sancti Albani, defunct', habentibus etc. ad administrand' bona jura et credita dicti defuncti Francisci Bacon defunct', juxta tenorem et effectum ipsius testamenti suprascript', ea quod dominus Thomas Crewe miles et dominus Johannes Constable miles, executores in hujusmodi testamento nominat' alias vigore mandator' sive occasionum a curia prærogat' Cantuar' emanat' ad id legitime et peremptorie citati, onus executionis testament' suprascript' in se suscipere recusarunt et denegarunt, saltem plus juste distulerunt; eoque quod dominus Humphridus Maye miles, cancellarius ducatus Lancastriæ, dominus Ricardus Hutton miles, unus justitiariorum domini nostri regis de banco coram, dominus Eubsll Thelwall miles, supremæ curiæ cancellariæ magistrorum unus, et dominus Franciscus Barnham miles, executores etiam in testamento suprascript' nominat', ex certis causis eos et amicos suos in ea parte juste moven' oneri executionis testament' suprascript' expresse renuntiarunt, prout ex actis curiæ prædict' plenius liquet et apparet; de bene et fideliter admiaistrando eadem ad sancta Dei evangelia in debita juris forma jurat'.

LINTHWAITE FARRANT
Registrar' deputat' assumpt'.

FRANCISCI DE VERULAMIO,

SUMMI ANGLIÆ CANCELLARII,

INSTAURATIO MAGNA.

NOBILISSIMI AUCTORIS VITA.

Franciscus Baconus, seculi et gentis suæ decus, ornator, et ornamentum literarum, natus est in palatio Eboracensi, infra plateam dictam Le Strand, juxta Londinum, XXII° Januarii, anno salutis humanæ MDLX. Patrem habuit illustrem illum Elizabethæ reginæ consiliarium, regni ejus (dum ipse vixit) columen alterum, dominum Nicolaum Bacouum, equitem auratum, magni sigilli Angliæ custodem, heroëm perspectæ prudentiæ, judicii, moderationis, et integritatis; matrem, Annam Cocam, Antonii Coci, equitis itidem aurati (qui eruditioni Edwardi sexti Angliæ regis præfuit) e filiabus unam; fœminam lectissimam, tam pietate et virtute, quam doctrina, præpollentem; necnon Græcæ et Romanæ linguæ peritia non mediocriter, pro sexu muliebri, imbutam. His ortus parentibus, in qualem prolem evasurus esset, etiam tum facile conjicere licuit; cui nulla, vel a natura, vel ab educatione adjumenta defuere.

Annos pueritiæ teneriores non sine eximiis præcellentiæ speciminibus transegit; qua ætate, ea indole et ingenii acumine præditus fuit, ut apem magnam injecerint profundæ illius et universalis apprehensionis, qua postea inclarucrit, et in notitiam procerum complurium, aliorumque, tam dignitate quam officiis eminentium virorum, induxerint; ante omnes autem reginæ ipsius, cui (ut a fide dignis accepi) cum eo colloqui, et quæstionibus difficilioribus tentare, sæpiuscule volupe fuit: ille autem tanta gravitate et judicii maturitate, supra ætatem, se expedire valebat, ut regina eum dominum custodem sigilli minorem appellare solita sit. Interroganti, Quot annos natus esset? ingeniose, etiam puer adhuc, respondit, "Se regimine ejus felici duobus annis juniorem fuisse."

Ætate academicæ literaturæ pro more idonea, vel potius paulo maturius, in album collegii Sanctæ et individuæ Trinitatis Cantabrigiæ, patris jussu, relatus est, sub tutela reverendissimi viri, domini Joannis Whitgifti, sacræ theologiæ doctoris, eo tempore collegii illios præfecti, postea autem percelebris archiepiscopi Cantuariensis, præsulis magnitudinis primæ, sanctitate, doctrina, patientia, et humilitate fulgentissimi; sub quo in artibus et studiis liberalibus, præ aliis contemporaneis suis, mirifice profecisse deprehensus est. Dum adhue in academia studiis incubuit, tantum non sexdecim annos ætatis asto (prout dominationi soæ mihi seorsum impertire placuit) philosophia Aristotelica primum insipida visa fuit; non propter vilipendium auctoris, quem summis semper laudibus evehere in more habuit, sed propter inefficacitatem vitæ; ejusmodi nimirum cum esset hæc philosophia (sicut dominationi suæ sæpius inculcare visum est) quæ ad disputationes et contentiones solummodo nata, ad productionem autem operum pro vitæ humanæ commodis sterilis omnino fuerit. In qua mente ad extremum usque spiritum perstitit.

Postquam artium liberalium encyclopædiam emensus fuerat, operæ pretium patri visum est eum ad artes politicas effingere atque formare: cujus rei gratia, in Galliam in comitatu Amicii Powletti, equestris dignitatis viri, ad regem Galliæ eo tempore legati ordinarii designati, mittendum curavit. A quo non ita multo post idoneus habitus est qui in Angliam ad nuncium aliqoem reginæ perferendum remitteretur. Quo quidem negotio perfunctus, non sine gratiis a regina redditis, in Galliam secundo remeavit; eo consilio, ut non nisi post annos aliquot exactos Angliam denuo inviseret. Dum in Galliis peregrinatus est, pater ejus, dominus custos magni sigilli, diem suum obiit; relicta (sicut a quibusdam ejus rei gnaris accepi) satis ampla nummorum vi, ad id congesta, ut latifundia aliqua in usum hujusce filii sui natu minimi coëmeret et compararet; qui solus sine patrimonio post obitum patris remansit: et quamvis in bonis paternis, in affectu tamen paterno, non infimum locom tenuit. Verum cum ejusmodi terrarum coëmptio, superstite adhue patre, designata tantum et non perimpleta fuerit, non plus ei cessit, quam pro rata pecuniæ inter quinque fratres distribuendæ. Quod in causa fuit, ut fortuna aliquantulum dura, ætate juniore usus sit. Neque enim præclarum illud et peramœnum prædium Gorhamburiense, nisi multis postea annis, adeptus est; per mortem scilicet carissimi fratris sui germani, Antonii Baconi, magni nominis viri, et in aulis principum externorum versatissimi, celsitudine quidem

ingeaii paris, sed in artium liberalium scientia fratri concedentis; inter quos magna necessitudo intervenerat: siquidem qui, præter enndem paternam originem, unius matris nexu aretius conjungerentur.

Reverso e Galliis, de genere vitæ statuendum fuit. Itsque jaris Angliæ muaicipalis studio et professioni se addixit. In qun spartn ornandn eximios brevi progressus fecit, licet (ut ipsius verbis utar) peritiam illam, tanquum aecessoriam, sive subsidinriam, non tanquam prineipalem, nmplexus sit. Varios tractatus circa hoc argumentum n principio emisit. In quibus, quamvis ab nliquibus professionis illius coryphæis mole et casuum numero forte superetur; pondere tamen, et fundamentorum ac mysteriorum juris scientia, nemini eessit. Nondum tyrocinium in lege egressus, a regina in coneilium suum doctum extraordinarium adscitus est; gratiam (uti nccepi) vix cuiquam antea indultam. Sedem sibi delegit, studiis suis et officio advocati eommodam, inter honorabilem societatem hospitii Greiensis: ia cajus societatis numerum sese adscripsit; ubi elegans illud ædificium sive structuram erexit, quæ hodie baronis Baconi nomine innotescit; quam per vices maximam partem vitæ (paucis solummodo annis exemptis) usque in diem mortis ineoluit. In qua societnte ea demum suavitate, comitate, et animi generositate usus est, ut magnum exinde amorem et reverentiam ab hospitii illius aenioribus et alumnis sibi conciliaverit.

Quamvis autem legis eonsultorum professioni pro vitæ et convictus sui exigentia astrictus esset, animo tamen et affeetu in artes politicas et officia status magis propendebat; quibus sane, si mnjestati tune augustæ plaeuisset, eum primis habilis fuit. Ætate adhac integra, iri numerum eorum, qui rebus nobilis illius sed infelicis herois, comitis Essexiæ, studebant, se adscripsit; cui, tanqaam intimus et fidissimus eonsultor, omnibus viribus inservivit, et in id incubuit, ut tuta tantum et honorifica mnuita animo ejus instillaret: donec ad extremum comes ille, temernriorum qoorundam et furiosorum homiaum eonsiliis aures præbens, in exitium se præcipitaverit.

Natalibus atque ingenuis animi sui dotibus hoc debuit, ut facilior ei et liberior ante reliquos profcsionis ejusdem aditus pateret ad nulam principis, adeoque in conspectum reginæ ipsius; quæ sermones cum eo seorsum et summa cum facilitate miscere (qnoties commodum erat) non aspernata est, non solum circa professionis ejus res et materias jaridicas, sed etiam circa ardua negotia status regni; cujus responnia de tempore in tempus libentissime acquievit. Veruntamen quamvis beaignitate vultus sui eum abunde refocillaverit, nunquam tamen refocillavit benignitate manas; utpote quæ ad nullum publicum munus, sive honoris sive emolumenti, eundem promoverit; dempta una reversione sieca officii registrarii in camera stellata, annui ut putabatur valoris mille et aexceutarum librarum, in cujos possessionem non nnte annos viginti aut eirciter devenit: de quo officio dominatio sua Elizabethæ tempore festive dixit, "Illud sibi esse instar fundi alieni ædibus suis adjaeentis, qui prospectum meliorare, horreum autem ejus replere non possit." Verum, regnante Jacobo, illo tandem officio potitus est, et per deputatum administravit. Hoc autem tribui possit nullo modo malevolo aut infenso in eum reginæ ipsius animo, sed artibus et æmulationi cujusdum e proceribus ea tempestate apud reginam potentis, qui eum omnibus modis deprimere et coërcere sedulo euravit, ne, si ad fastigium aliquod uttoleretur, propria per eum gloria obfuscaretur.

Quamvis autem tempore dominæ suæ Elizabethæ reginæ retnrdationem diutinam passus sit, post regiminis tamen mutationem, et ingressum domini sui novi Jaeobi regis, incitato gradu perrexit: a quo fiduciæ, honoris, et proventnum muniis eximie eohonestatus est. Ipse vidi literas quasdam, propria maau nd Jacobum regem eoascriptas, quibus "talem illum fuisse erga se dominum agnoseit, qui repetitis subinde favoribus novies eumulasset; ter honoribus, sexies autem officiis." Officia, quæ intelligit (ut puto) hæe erant, eonsilium doctum extrnordinarium regiæ majestati suæ, (quo loco antea inservivit majestati regiæ,) regis sulicitator generalis, atturnatus regis geueralis sive procurator primarius, eooptatus in sanetius regis coaeilium dum adhue atturnati loeum gessit, dominus custos magni sigilli Angliæ, ultimo dominus cancellarias Angliæ. Quæ quidem muuera posteriora duo licet auetoritate et potestnte eadem sint, diplomatibus tamen, fastigio, et favore prineipis differunt. A cujus mngistratu successorum nullus domini cancellarii Angliæ titulo ia hunc usque diem deeoratus est. Honores ernnt, primo, eques nuratus; dein, baro Verulamius; postremo, vice-comes Sancti Albani: præter alia dona magnifiea et manus benignitates, quibus eum dotare majestati suæ visum fuit, tam ex proventibus magni sigilli, quam ex officio alienationis.

Circa annos magis propitios de matrimouio coatrahendo consilium cepit. Itaque in uxorem duxit Alieiam, filiam, et hæredum unam Benedieti Barnhami, armigeri, et aldermanni Londinensis: cum qua dotem satis nmplam et lautam, tam in terris, quam in peeuniis numerntis, recepit. Liberos ex ea suseepit nullos: qui quamvis ndjumento sint ad nomen nostrum post obitum perpetuandum; illi tamen alia propagine nd nomen suum perpetuandum beari eontigit, propagine scilicet cerebri sui, in qua semper felix et mirabilis fuit; instar Jovis, eum Pallada enixus sit. Neque vero liberorum defectus ullo pneto amorem ejus erga nuptam imminuit, quam summa semper dilectione eonjugali et amoris indieiis proseeutus est; supelleetili lauta, monilibus variis, et fuadis insuper donavit: addita etiam trabea honorarin maritali, quam viginti plus miaus annos post obitum ejus gestavit. Totidem enim anais honoratissimo maritu superstes fuit.

Quinquennium extremum vitæ suæ, a negotiis eivilibus et vita activa retractus, studiis et contemplationibus iusumpsit. Quæ res saae visa est ei maxime cordi fuisse; ae si in umbra potius, quam in luee, commori optasset. Cujas etiam non obscura indicia in operibus ejus perlegendis reperire licet. Quo temporis spntio, librorum suorum, tam Anglieano quam Romano sermone couscriptorum, maximam partem exaravit. Quos jam juxta temporis seriem, quo eouscripti erant (quam præsens observavi) ennmerare satagam. Ii sie se habueruat,

'Historia regni Henrici septimi regis Angliæ,' sermone patrio. 'Abecedorium naturæ,' scriptum metaphysicum; quod, nescio quo malo fato, periit. 'Historia ventorum.' 'Historia vitæ et mortis.' 'Historia densi et rari,' jam primum typis mandata. 'Historia gravis et levis,' quæ itidem periit. Hi libri stylo Romano elucubrati. Dein fragmenta quædam Anglicana, quæ fuerunt, 'Dissertatio de bello cum Hispanis gerendo.' 'Dialogus de bello sacro.' 'Fabula Novæ Atlantidis.' 'Præfatio digesto de legibus Angliæ' præfigenda. Initium 'Historiæ regni Henrici octavi regis Angliæ.' Intervenerat opus 'De augmentis scientiarum;' in quo e lingua vernacula, proprio marte, in Latinam transferendo honorotissimus auctor plurimum desudavit, et multis subinde ac variis additionibus locupletavit. Postea, 'Consilia civilia et moralia' (antea 'Delibationes' dictæ) tunc autem et numero et pondere aucta, idiomate Anglicano. 'Psalmorum Davidis nonnulli, in rhythmos Anglicanos compositi.' Iterum, versio quorundam e scriptis suis de patrio in sermonem Romanum: quæ fuerunt, 'Historia regni Henrici septimi regis Angliæ.' 'Consilia civilia et moralia,' exinde dicti, 'Sermones fideles, sive interiora rerum.' 'Dialogus de bello sacro:' et 'Fabula Novæ Atlantidis;' in gratiam exterorum, apud quos expeti inaudiverat. Liber 'De sapientia veterum' recognitus. 'Inquisitio de magnete.' 'Topica inquisitionis de luce et lumine.' Ultimum locum tenuit 'Sylva sylvarum, sive historia naturalis,' opus Anglicum. Atque hi fructus fuerunt, qui in umbra annorum quinque memoratorum maturuerunt. Libros ante quinquennium illud elaboratos non hic recito. Quin et propositum illi fuit (mandante serenissimo nuper rege Carolo) 'Historiam Henrici octavi Angliæ regis' contexuisse: sed opus illud ultra designationem solam non processit, Deo ulteriorem vitam celeberrimo auctori minime largiente. Extat tamen specimen quoddam historiæ illius, quam paucæ unius dici horulæ matutinæ olim parturierunt, inter opera ejus historica Anglice edita; per quod ex ungue leonem dignoscere possis.

Virtutes et animi dotes non minus, quam curriculum vitæ, in heroë isto commemorando locum sibi vendicant. Facultates illæ, quas in aliis non infimi ingenii hominibus dissociatas fere et solitarias reperies, in illo conjunctæ, et quasi connubio copulatæ eminebant. Eæ fuerunt ingenii acumen, memoria fida, judicium penetrans, et elocutio profluens. Ac de prioribus illis tribus libri ejus abunde testantur; de quibus (ut de Julio Cæsare Hirtius) "quum bene atque emendate, cæteri judicent; nos etiam, quam facile atque celeriter, eas præscripserit, scimus." Sed de quarta (pota elocutione) illud effari libet, quod ipse audivi insignem illum Gualtherum Raleghum, virum eqoestri dignitate et singularibus virtutibus ornatum (cujus judicio non immerito fidendum est) semel disserentem: nimirum, "Comitem Sarisburiensem oratorem bonum fuisse, scriptorem malum; e contra, comitem Northamptoniensem scriptorem bonum fuisse, oratorem malum; sed dominum Franciscum Baconum in utroque, tam dicendo, quam scribendo, præcelluisse."

Non raro mentem subiit cogitatiu, Deum, si ullum mortalium novissimis his temporibus radio quodam scientiæ humanæ illuminare dignatos sit, illum procul dubio illuminasse: quanquam enim sedulo libros evolverat, ex libris tamen solis scientiam suam deprompsisse haudquaquam concedere licet, sed ex principiis et notionibus quibusdam, intra se accensis; quas nihilominus non temere, sed caute admodum, et lente, propalavit. Opus illud 'Novi Organi' (cui ipse inter opera sua primas tribuit) neutiquam sane cogitatio umbratilis, aut cerebri proprii commentum fuit; sed veluti fixa et radicata notio, multorum annorum et laboris improbi proles. Ipse reperi, in archivis dominationis suæ, autographa plus minus duodecim 'Organi novi,' de anno in annum elaborati, et ad incudem revocati; et singulis annis, ulteriore lima subinde politi et castigati; donec in illud tandem corpus adoleverat, quo in lucem editum fuit: sicut multa ex animalibus fœtus lambere consuescunt, usque quo ad membrorum firmitudinem eos perducant.

In libris suis componendis, verborum vigorem et perspicuitatem præcipue sectabatur; non elegantiam, aut concinnitatem sermonis: et inter scribendum, aut dictandum, sæpe interrogavit, num sensus ejus clare admodum et perspicue redditus esset? Quippe qui sciret æquum esse ut verba famularentur rebus, non res verbis Et si in stylum forsitan politiorem incidisset (siquidem apud nostrates eloquii Anglicani artifex habitus est) id evenit, quia evitare arduum ei erat. Neque vero verborum minutiis, et allusionibus capiebatur; sed eas semper ex composito, et de industria, effugit; probe sciens ejusmodi futilitates nihil aliud esse, quam deviationes et aberrationes a scopo proposito, et gravitati et dignitati styli non modicum officere et detrahere.

Legendo usque ad satietatem aut tædium non immorabator. Quumvis enim multum legerit, idque summo cum judicio, et rejectione omnis scoriæ, quæ in scriptoribus plurimis sese offert; commodam tamen animi relaxationem studiis suis intermiscuit: veluti, deambulationem lenem, vectionem in rheda, equitationem, non citam sed lentam, globorum lusum; et alia id genus exercitia. Neque vero jacturam temporis ullam fecit: quamprimum enim domum redierit, confestim et absque ulla mora lectioni aut meditationi renovandæ incubuit: sicque nullum momentum, aut temporis segmentum, perire et intercidere passus est.

Mensam ejus refectionem aurium diceres, æque ac ventris: non absimilem noctibus illis Atticis, aut conviviis deipnosophistarum; in quibus mente et intellectu refici licebat, non minus quam corpore. Novi etiam nonnullos sublimioris ingenii viros, qui ad pugillares se recepisse professi sint, quoties a mensa ejus surrexerint. Convivantium nemioem, aut alias colloquentium, pudore suffundere gloriæ sibi duxit, sicut nonnulli gestiunt; sed facultates eorum qualescunque fovere et provehere paratus erat. Quin et sermonis licentiam aibi soli arripere in more non erat; sed et aliis simul considentibus libertatem et vicissitudinem loquendi permittere: hoc etiam addendo, quod in arte unumquemque propria lubentissime audiret; et ad ejusmodi dissertationem pellicere et provocare consueverit. Ipse

autem nullius observationes contempsit; sed ad candelam cujuslibet lampada suam accendere non erubuit.

Dicta, et pronuneiata ejus, vix unquam in dubium vocata sunt; eumque disserentem omnes audierunt, nullus se opposuit; ac si oracula magis, quam eloquia, protulisset. Quod quidem, sive exactæ sententiæ suæ, antequam declarasset, in lance veritatis, et rationis librationi; sive existimutioni, qua ab omnibus habitus fuit, ut nemo contrairet, tribuendum censeo. Unde urgumentationis genus illud, qua in utramque partem disceptutur, mensa ejus haud novit; aut si aliqua forte intervenerit, eadem cum magna submissione, et moderatione, ugitata fuit.

Sæpe observavi, neque virorum quorundam illustrium notitiam effugit; quod si occasio forte interveniret sermonis alieni inter colloquendum repetendi, ea facultate præditum fuisse, ut novis subinde et melioribus vestibus indutum proferret: adeo ut auctor ipse sermonem proprium ornatu cultiorem cerneret; sensu autem, et muteria minime mulctatum; ac si furmulis bonis uti res esset ei a natura indita: id quod in carminibus componendis de se cecinit Ovidius,

"Et quod tentabam scribere, versus erat."

Quotiescunque ex officio premebatur reum aliquem peragere (quod muneris regiæ majestatis consilio docto incumbebat) sive in criminnlibus, sive in capitalibus, nunquam se superbum, aut fastuosum, versus delinquentem præbuit; sed semper lenem, et decenti temperie affectum: et quanqunm sciebat ex munere suo esse pro parte regis crimen udversus reum, pro virili sua, urgere et aggravare; ita tamen se gessit, ut severitatis oculo exemplum, misericordiæ oculo personam, intueretur. In negotiis autem status, quando in sanctius regis coneilium ascitus fuit, optimum consulendi modum tenuit; non implicando dominum suum in consiliis aliquibus temerariis, aut popalo gravioribus, sed temperatis, et æqualibus: Jacobo rege hoc eum testimonio ornante, "Illum viam calluisse negotia ejus tractandi suavibus modis; atque id majestati suæ maxime eordi fuisse, pronunciavit."

Neque vero (cum occasio tulerat) minus gratiosus apud subditos regni fuit, quam upud regem ipsum. Comitiis parliamentariis inferioris consessus, dum in ea domo sedit, pergratus semper fuit; iu qua sæpe peroravit, non sine magno npplnusu. Postquam ad munus atturnati generalis evectus fuisset, et ad locum in parliamento electus, libertas inter ipsos consultandi communi suffragio ei concessa est; quæ sliis atturnatis generalibus minime indulta.

Sicut autem erga herum suum servi boni laudem reportsvit; siquidem in annorum novendecim administratione (prout ipse asseruit) in reprehensionem regis propter aliquam offensam in majestatem regiam immediate admissam nunquam incurrerat; ita erga servos proprios heri boni nomen obtinuit; et servitia eorum dinturna præclaris officiis, cum in potestatem suam devenerunt, gratis compensavit. Quæ res in causa fuit cur tot melioris notæ juvenes, e claria familiis oriundos, in numerum asseclarum suorum recipere precibus pene fatigatns sit. Quod si eurum aliqui gratia, et favore ejus perperam usi sint, id solummodo errori bonitatis suæ nativæ, eorum autem perpetuæ infamiæ et intemperuntiæ tribuendum est.

Heros iste divini Numinis cultor fuit. Quamvis enim viris politicis, et ingeniis prœaltis, atheismi notam inurere vulgo inoleverat; ille tamen Deum et agnovit, et coluit. Id quod ex variis testimoniis, per filum operum suorum sparsis, liquidissime apparet. Alias enim principia propria destruxisset et evertisset; quæ fuerunt, "Philosophiam primoribus tantum labiis degustatam a Deo abducere; utpote, quæ causas secundas ultra debitum magni faceret: philosophiam autem plene haustam ad Deum denuo redneere." Illum autem philosophum profundum extitisse nemo, opinor, est, qui neget. Neque hoc solum, sed et "omni poscenti rationem reddere de ea, quæ in illo erat, spe," et potens et paratus fuit. Hocque opus illud "confessionis fidei" abnnde testatum reliquit. Interesse frequenter solebat (eum per valetudinem liceret) divinis officiis, sive privatim, sive publice celebratis; concionibus audiendis; sacræ eucharistiæ participandæ; et tandem in fide vera, in ecclesiu Anglicana stabilita, placide obdormivit.

Hoc pro certo ponendum est, eum malevolentiæ omnis penitus expertem fuisse; quam (ut ipse dixernt) neque parturivit, neque pavit. De injuriarum vindicta ne cogitavit quidem: ad quum si ita animo affectus fuisset, et opportunitate et potestate armatus fuit. Deturbator officiariorum a muneribus adeptis neutiquam fuit; ac si exitio, et ruina uliorum se impinguasset. Calumniator apud principem non cluit. Die quodum, cum quidam e ministris stutus primariis, neutiquam ei favens, nuper defunctus fuisset, rex eum pereontatus est, quid de domino illo, jam fatis functo, sentiret? Cui respondit, "Ejusmodi eum fuisse, qui majestatis tuæ res nunquum promovisset, aut auctiores fecisset; verum a præcipitio et declinatione servare haud dubie sategisset." Neque enim duriurem de eo sententiam proferre voluit. Quam quidem non inter virtutes illius morales, sed Christianas, numero.

Nomen ejus magis foris, et upud exteros, quum domi, inter populares suos, celebratum est, et iaclaruit: veluti id quod oraculo illi divino etiam subjicitur, "Non est propheta sine honore, nisi in patria sua, et in domo sua." In qua re, paucula quædam ex epistola, ab Italia (ingeniorum politorum apotheca) ad comitem nuper Devoniensem, eo tempore baronem Candishium, missa, excerpam: quæ sic se habuerunt; "*Delibatiunes* novas domini cancellarii Baconi, nec non *Historiam* ejus, et quicquid aliud jam molitur, iugenti cum animi ardore exspectabo: specintim autem in *Historia* sua opus perfectum, et limatum, mihi spondeo; præsertim in Henrici septimi rebus gestis; in quibus enarrandis acumiais sui divini talentum exereere licebit. Domiaus iste indies in majus innotescit, et operu ejus magis magisque upud nos in deliciis habentur; atque ii, qui in rebus humanis ultra vulgare sapiunt, eum inter ingenia seculi hujus cupacissima et celsissima reputant: et sic revera est." Jam fama ejus diuturnitate non deflorescit, sed potius augescit. Librorum ejus plurimi alias linguas, tam eruditas quum modernas, et pridem et nuper, cullere edocti

sunt ab illarum nationum indigenis. Viri primarii aliquot, dum adhuc in vivis fuit, nullam aliam ob causam huc in Angliam transfretarunt, quam ut eum conspicerent, et eum eo coram loquendi opportunitatem captarent, quorum unum pictura sua, a capite ad pedes usque delineata, in Galliam secum portanda donavit: quam hospes ille tanquam rem gratissimam conterraneis suis futuram fassus est; ut ita imagine personæ non secus, ac imaginibus cerebri (libris nimirum) potirentur. Inter cæteros marchio Fiatus, nobilis Gallus, qui legatus in Angliam venerat anno primo Mariæ reginæ, Caroli regis nuptæ, ingenti animi ardore eum invisendi captus est. Ad quam rem opportunitatem nactus, et cubiculum ingressus præ infirmitate in lectulo decumbentis, stylo aliquantum grandiore eum adortus est, "Dominationem suam sibi semper angelis similem fuisse; de quibus multa ad illius aures pervenerunt, et in libris similiter lectitarit, sed eos nunquam coram conspicere concessum fuit." A quo congressu tanta inter eos amicitia inita fuit, et marchio eum tanta reverentia prosecutus est, ut præter visitationes crebras, literæ invicem sub nominibus et titulis patris et filii intercesserint. Quod ad salutationes innumeras per epistolas, ab exterarum nationum viris primariis, sapientiæ aut bonarum artium studio deditis, missas, nihil hic addo; utpote rem aliis melioris notæ hominibus cum eo communem.

Jam vero cum de fama ejus dissero, intelligi velim, ac si in stylo non exclusivo, sed comparativo tantum scriberem: fama enim ejus etiam apud Anglos suos non flaccida aut enervis, sed vivida et vegeta est; præcipue apud eos, qui ingenio acutiore et sublimiore, emineant. Cujus rei testimonia tantum dno inserere libet, et non plura. Prius est, cum "Historia regni Henrici septimi" jam prælo matura fuerit, Fulconi baroni Brooko a Jacobo rege perlegenda tradita est: is, cum totam absolvisset, hoc elogio ad auctorem remisit, "Commendatum me habeas dominationi suæ; et exora eum, ut de papyro et atramento bono comparando curam suscipiat; opus enim ipsum supereminet." Alterum doctoris Samuelis Cullini, in inclyta academia Cantabrigiensi nuper et theologiæ professoris regii, et collegii regalis præpositi, viri minime vulgaris ingenii; qui mihi ipsi (sive festive, sive serio) affirmavit, "Quod postquam librum *De profectu scientiarum* perlegisset, eo se adactum putaverit, ut studia sua de integro renovare necesse fuerit; et quod oleum et operam antea impensam perdiderit."

Efflagitatum a nonnullis est ut de diæta ejus, et regimine valetudinis, quædam insererentur; eo, quod, propter universalem ejus in rebus naturalibus cognitionem, poterit fortasse quibusdam exemplo suo præire. Quod ad diætam; plena potius et liberali usus est, prout stomachus ferebat, quam tenui aut parca: quam etiam in "Historia vitæ et mortis" alicubi collandavit. Ætate juniori, cibis delicatioribus et levioribus (veluti carnibus volatilium et hujusmodi) præcipue vescebatur; sed experientia edoctus, carnes fortiores, quales in macello veneunt, potius probavit; utpote, quæ succos corporis magis firmos et solidos, et (ut ipsius verbis utar) minus dissipabiles progenerarent; ex quibus solis sæpenumero pascebatur, licet mensa ejus ferculis aliis non destitueretur. Persuasum habeas, illud nullatenus ipsum neglexisse quod in scriptis suis toties decantatum reperies, usum nimirum crebrum nitri; cujus quidem grana circiter tria quotidie in jusculo tenui et tepido, per triginta ad minus annos immediate mortem ejus antecedentes, mane sumpsit. Quantum ad medicinam; verum est, medice eum vixisse, sed non misere. Siquidem rhabarbari sesqui-drachmam, et non amplius, in haustu cerevisiæ et vini albi simul commixtorum ad spatium semi-horæ infusi et macerati (sex aut septem diebus interjectis) continuo sumpserit: idque paulo ante cibum (sive prandium, sive cœnam) quo minus corpus desiccaret: quod (sicut ipse asserait) humores excrementitios corporis sæpius asportaret; spiritus autem exhalare non provocaret; sicut sudores repetiti faciunt. Jam tantillum medicinæ sumere, miserum non fuit. Aliis autem medicamentis (quicquid vulgo jactatum fuit) non omnino assuevit. Remedium adversus podagram, cujus ipse auctor fuit, quodque intra spatium horarum duarum, sæpius experto, dolorem lenivit, extat in fine "Historiæ naturalis."

Verisimile est, lunam in themate ejus natalitio præcipuum aliquem locum (veluti in horoscopo, aut medio cœli) tenuisse. Quoties enim luna defecit, aut eclipsim passa est, repentino animi deliquio correptus fuit: idque etiam si nullam defectionis lunaris notitiam præviam habuisset. Quamprimum autem luna lumini priori restituta fuisset, confestim refocillatus est, et convalnit.

Obiit ix° die Aprilis, anno MDCXXVI, summo mane illius diei qui in festum resurrectionis Domini tunc illuxit, ætatis sexagesimo sexto, apud ædes comitis Arundeliæ in villa de High-gate prope Londinum; ad quem locum, animi reficiendi, non commorandi gratia, ante dies octo casu devenit, Deo sic ordinante, ut illic animam efflaret, e febri lenta, una cum catarrho vehemente; unde humor adeo copiose ad pectus ejus defluxit, ut per suffocationem extinctus sit. Sepultus autem est in ecclesia Sancti Michaelis, fano Sancti Albani vicina, loco supremis tabulis sepulturæ suæ destinato: tum quia matris ejus corpus in eadem ecclesia humatum recumbat; tum quia ecclesia illa ex urbis vetustæ Verulamii ruderibus hodie sola superstes sit. Ubi monumentum præclarum e marmore candido in memoriam illius exstructum est (cura et gratitudine Thomæ Meutesii, equitis aurati, et administratoris ultimi ipsius testamenti, quondam dominationi suæ a secretis, postea concilii regis sanctioris sub regibus duobus clerici) exhibens effigiem suam in cathedra sedentis, et studio incumbentis; una cum epitaphio, quod lectissimus ille, et nitidioris ingenii, nec non equestris dignitatis, vir, Henricus Wottonus, amoris et admirationis ergo, composuit.

Quamvis autem corpus, quod deposuit, mortale fuerit, libri tamen ejus, et memoria, haud dubie perennes erunt; neque prius fatis cessuri, quam orbis terrarum machina dissolvatur. Quo permotus, quantulacunque hæc, pro tenuitate mea, colligere visum est, ut nomini ejus in posterum propagando quoquo modo inservirem.

A. D. MDCLVIII. GUL. RAWLEY.

FRANCISCUS DE VERULAMIO,

SIC COGITAVIT,

TALEMQUE APUD SE RATIONEM INSTITUIT; QUAM VIVENTIBUS ET POSTERIS NOTAM FIERI, IPSORUM INTERESSE PUTAVIT.

Cum illi pro comperto esset, intellectum humanum sibi ipsi negotium facessere, neque auxiliis veris (quæ in hominis potestate sunt) uti sobrie et commode; unde multiplex rerum ignoratio, et ex ignoratione rerum detrimenta innumera: omni ope consitendum existimavit, si quo modo commercium istud mentis et rerum (cui vix aliquid in terris, aut saltem in terrenis, se ostendit simile) restitui posset in integrum, aut saltem in melius deduci. Ut vero errores qui invaluerunt, quique in æternum invaliturі sunt, alii post alios (si mens sibi permittatur) ipsi se corrigerent, vel ex vi intellectus propria, vel ex auxiliis atque adminiculis dialecticæ, nulla prorsus superat spes; propterea quod notiones rerum primæ, quas mens haustu facili et supino excipit, recondit, atque accumulat (unde reliqua omnia fluunt) vitiosæ sint, et confusæ, et temere a rebus abstractæ; neque minor sit in secundis et reliquis libido et inconstantia: ex quo fit, ut universa ista ratio humana, qua utimur quoad inquisitionem naturæ, non bene congesta et ædificata sit, sed tanquam moles aliqua magnifica sine fundamento. Dum enim falsas mentis vires mirantur homines et celebrant, veras ejusdem, quæ esse possint (si debita ei adhibeantur auxilia, atque ipsa rebus morigera sit, nec impotenter rebus insultet) prætereunt et perdunt: restabat illud unum, ut res de integro tentetur melioribus præsidiis; utque fiat scientiarum et artium, atque omnis humanæ doctrinæ, in universum instauratio, a debitis excitata fundamentis. Hoc vero licet aggressu infinitum quiddam videri possit, ac supra vires mortales; tamen idem tractatu sanum invenietur, ac sobrium magis, quam ea, quæ adhuc facta sunt. Exitus enim hujus rei est nonnullus. In iis vero, quæ jam fiunt circa scientias, est vertigo quædam, et agitatio perpetua, et circulus. Neque eum fugit quanta in solitudine versetur hoc experimentum, et quam durum et incredibile sit ad faciendam fidem. Nihilominus, nec rem, nec seipsum deserendum putavit; quin viam, quæ una humanæ menti pervia est, tentaret atque iniret: præstat enim principium dare rei, quæ exitum habere possit, quam in iis, quæ exitum nullum habent, perpetua contentione et studio implicari. Vitæ autem contemplativæ viis illis activis decantatis fere respondent; ut altera, ab initio ardua et difficilis, desinat in apertum; altera, primo intuitu expedita et proclivis, ducat in avia et præcipitia. Cum autem incertus esset, quando hæc alicui posthac in mentem ventura sint; eo potissimum usus argumento, quod neminem hactenus invenit, qui ad similes cogitationes animum applicuerit; decrevit prima quæque, quæ perficere licuit, in publicum edere. Neque hæc festinatio ambitiosa fuit, sed solicita; ut si quid illi humanitus accideret, extaret tamen designatio quædam, ac destinatio rei, quam animo complexus est; utque extaret simul signum aliquod honestæ suæ et propensæ in generis humani commoda voluntatis. Certe aliam quamcunque ambitionem inferiorem duxit re, quam præ manibus habuit: aut enim hoc, quod agitur, nihil est; aut tantum, ut merito ipso contentum esse debeat, nec fructum extra quærere.

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SERENISSIMO POTENTISSIMOQUE

PRINCIPI AC DOMINO NOSTRO

JACOBO,

DEI GRATIA MAGNÆ BRITANNIÆ, FRANCIÆ, ET HIBERNIÆ REGI, FIDEI DEFENSORI, ETC.

SERENISSIME, POTENTISSIMEQUE REX,

POTERIT fortasse majestas tua me furti incusare, quod tantum temporis, quantum ad hæc sufficiat, negotiis tuis suffuratus sim. Non habeo quod dicam. Temporis enim non fit restitutio; nisi forte quod detractum fuerit temporis rebus tuis, id memoriæ nominis tui et honori seculi tui reponi possit; si modo hæc alicujus sint pretii. Sunt certe prorsus nova; etiam toto genere: sed descripta ex veteri admodum exemplari, mundo scilicet ipso, et natura rerum et mentis. Ipse certe (ut ingenue fatear) soleo æstimare hoc opus magis pro partu temporis, quam ingenii. Illud enim in eo solummodo mirabile est; initia rei, et tantas de iis, quæ invalucrunt suspiciones, alieni in mentem venire potuisse. Cætera non illibenter sequuntur. At versatur proculdubio casus (ut loquimur) et quiddam quasi fortuitum, non minus in iis, quæ cogitant homines, quam in iis, quæ agunt aut loquuntur. Verum hunc casum (de quo loquor) ita intelligi volo, ut si quid in his, quæ affero, sit boni, id immensæ misericordiæ et bonitati divinæ, et felicitati temporum tuorum tribuatur: cui et vivus integerrimo affectu servivi, et mortuus fortasse id effecero, ut illa posteritati, nova hæc accensa face in philosophiæ tenebris, prælucere possint. Merito autem temporibus regis omnium sapientissimi et doctissimi *regeneratio* ista et *instauratio* scientiarum debetur. Superest petitio, majestate tua non indigna; et maxime omnium faciens ad id quod agitur: ea est, ut quando Salomonem in plurimis referas, judiciorum gravitate, regno pacifico, cordis latitudine, librorum denique, quos composuisti, nobili varietate: etiam hoc ad ejusdem regis exemplum addas, ut cures historiam naturalem et experimentalem, veram et severam (missis philologicis) et quæ sit in ordine ad condendam philosophiam, denique qualem suo loco describemus; congeri et perfici: ut tandem post tot mundi ætates, philosophiæ et scientiæ non sint amplius pensiles et aëreæ, sed solidis experientiæ omnigenæ, ejusdemque bene pensitatæ, nitantur fundamentis. Equidem *Organum* præbui: verum materies a rebus ipsis petenda est. Deus Opt. Max. majestatem tuam diu servet incolumem.

Serenissimæ Majestati tuæ

Servus devinctissimus,

et devotissimus,

FRANCISCUS VERULAM,

CANCELLARIUS.

PRÆFATIO,

DE STATU SCIENTIARUM, QUOD NON SIT FELIX, AUT MAJOREM IN MODUM AUCTUS; QUODQUE ALIA OMNINO, QUAM PRIORIBUS COGNITA FUERIT, VIA APERIENDA SIT INTELLECTUI HUMANO; ET ALIA COMPARANDA AUXILIA, UT MENS SUO JURE IN RERUM NATURAM UTI POSSIT.

VIDENTUR nobis homines, nec opes, nec vires suas bene nosse; verum de illis majora, quam par est, de his minora, credere. Ita fit, ut aut artes receptas insanis pretiis æstimantes, nil amplius quærant; aut seipsos plus æquo contemnentes, vires suas in levioribus consumant; in iis, quæ ad summam rei faciant, non experiantur. Quare sunt et suæ scientiis columnæ, tanquam fatales; cum ad ulterius penetrandum, homines nec desiderio, nec spe excitentur. Atque, cum opinio copiæ inter maximas causas inopiæ sit; quumque ex fiducia præsentium, vera auxilia negligantur in posterum; ex usu est, et plane ex necessitate, ut ab illis, quæ adhuc inventa sunt, in ipso operis nostri limine (idque relictis ambagibus, et non dissimu-

lanter) honoris et admirationis excessus tollatur; utili monito, ne homines eorum aut copiam, aut utilitatem, in majus accipiant, aut celebrent. Nam si quis in omnem illam librorum varietatem, qua artes et scientiæ exultant, diligentius introspiciat, ubique inveniet ejusdem rei repetitiones infinitas, tractandi modis diversas, inventione præoccupatas; ut omnia primo intuitu numerosa, facto examine, pauca reperiantur. Et de utilitate aperte dicendum est; sapientiam istam, quam a Græcis potissimum hausimus, pueritiam quandam scientiæ videri, atque habere quod proprium est puerorum; ut ad garriendum prompta, ad generandum invalida et immatura sit. Controversiarum enim ferax, operum effœta est. Adeo ut fabula illa de Scylla, in literarum statum, qualis habetur, ad vivum quadrare videatur; quæ virginis os et vultum extulit, ad uterum vero monstra latrantia succingebantur et adhærebant. Ita habent et scientiæ, quibus insuevimus, generalia quædam blandientia et speciosa; sed cum ad partienlaria ventum sit, veluti ad partes generationis, ut fructum et opera ex se edant, tum contentiones et oblatrantes disputationes exoriuntur, in quas desinunt, et quæ partus locum obtinent. Præterea, si hujusmodi scientiæ plane res mortua non essent, id minime videtur eventurum fuisse, quod per multa jam secula usu venit; ut illæ suis immotæ fere hæreant vestigiis, nec incrementa genere humano digna sumant: eo usque, ut sæpenumero non solum assertio maneat assertio, sed etiam quæstio maneat quæstio, et per dispututiones non solvatur, sed figatur et alatur: omnisque traditio et successio disciplinarum repræsentet et exhibeat personas magistri et auditoris, non inventoris, et ejus, qui inventia aliquid eximium adjicint. In artibus autem mechanicis, contrarium evenire videmus: quæ, ac si auræ cujusdam vitalis forent participes, quotidie crescunt et perficiuntur; et in primis auctoribus rudes plerunque et fere onerosæ et informes apparent, postea vero novas virtutes et commoditatem quandam adipiscuntur, eo usque ut citius studia hominum et cupiditates deficiant et mutentur, quam illæ ad culmen et perfectionem suam pervenerint. Philosophia contra et scientiæ intellectuales, statuarum more, adorantur et celebrantur, sed non promoventur: quin etiam in primo nonnunquam auctore maxime vigent, et deinceps degenerant. Nam postquam homines dedititii facti sint, et in unius sententiam (tanquam pedarii senatores) coierint, scientiis ipsis amplitudinem non addunt, sed in certis auctoribus ornandis et stipandis, servili officio funguntur. Neque illud afferat quispiam; Scientias paulatim succrescentes, tandem ad statum quendam pervenisse, et tum demum (quasi confectis spatiis legitimis) in operibus paucorum sedes fixas posuisse; atque postquam nil melius inveniri potuerit, restare scilicet, ut, quæ inventa sint, exornentur et colantur. Atque optandum quidem esset, hæc ita se habuisse. Rectius illud et verius; istas scientiarum mancipationes nil aliud esse, quam rem ex paucorum hominum confidentia, et reliquorum socordia et incertia natam: postquam enim scientiæ, per partes diligenter fortasse excultæ et tractatæ fuerint, tum forte exortus est aliquis, ingenio audax et propter methodi compendia acceptus et celebratus, qui specie tenus artem constituerit, revera veterum labóres corruperit. Id tamen posteris gratum esse solet, propter usum operis expeditum, et inquisitionis novæ tædium, et impatientiam. Quod si quis, consensu jam inveterato, tanquam temporis judicio moveatur; sciat se ratione admodum fallaci et infirma niti. Neque enim nobis magna ex parte notum est, quid in scientiis et artibus, variis seculis et locis, innotuerit, et in publicum emanarit; multo minus, quid a singulis tentatum sit, et secreto agitatum. Itaque nec temporis partus, nec abortus extant in fastis. Neque ipse consensus, ejusque diuturnitas magni prorsus æstimandus est. Utcunque enim varia sint genera politiarum, unicus est status scientiarum, isque semper fuit, et mansurus est popularis. Atque apud populum plurimum vigent doctrinæ, aut contentiosæ et pugnaces, aut speciosæ et inanes; quales videlicet assensum aut illaqueant, aut demulcent. Itaque maxima ingenia proculdubio per singulas ætates vim passa sunt; dum viri captu et intellectu non vulgares, nihilo secius existimationi suæ consulentes, temporis et multitudinis judicio se submiserint. Quamobrem altiores contemplationes, si forte usquam emicuerunt, opinionum vulgarium ventis subinde agitatæ sunt, et extinctæ: adeo ut tempus, tanquam fluvius, levia et inflata ad nos devexerit, gravia et solida demerserit. Quin et illi ipsi auctores, qui dictaturam quandam in scientiis invaserunt, et tanta confidentia de rebus pronuntiant; cum tamen per intervalla ad se redeunt, ad querimonias de subtilitate naturæ, veritatis recessibus, rerum obscuritate, causarum implicatione, ingenii humani infirmitate se convertunt: in hoc nihilo tamen modestiores, cum malint communem hominum et rerum conditionem causari, quam de seipsis confiteri. Quin illis hoc fere solenne est, ut quicquid ars aliqua non attingat, id ipsum ex eadem arte impossibile esse statuant. Neque vero damnari potest ars, quum ipsa disceptet, et judicet. Itaque id agitur, ut ignorantia etiam ab ignominia liberetur. Atque quæ tradita et recepta sunt, ad hunc fere modum se habent: quoad opera sterilia, quæstionum plena; incrementis suis tarda et languida; perfectionem in toto simulantia, sed per partes male impleta; delectu autem popularia et auctoribus ipsis suspecta, ideoque artificiis quibusdam munita, et ostentata. Qui autem et ipsi experiri, et se scientiis addere, earumque fines proferre statuerunt, nec illi a receptis prorsus desciscere ausi sunt, nec fontes rerum petere. Verum se magnum quiddam consequutos putant, si aliquid ex proprio inseruat et adjiciant; prudenter secum reputantes, se in assentiendo modestiam, in adjiciendo libertatem tueri posse. Verum dum opinionibus et moribus consulitur, mediocritates istæ laudatæ in magnum scientiarum detrimentum cedunt: Vix enim datur, auctores simul et admirari, et superare. Sed fit aquarum more, quæ non altius ascendunt, quam ex quo descenderunt. Itaque hujusmodi homines emendant nonnulla, sed parum promovent; et proficiunt in melius, non in majus. Neque tamen defuerunt, qui ausu majore, omnia integra sibi daxerunt, et ingenii impetu usi, priora prosternendo, et destruendo, aditum sibi et placitis suis fecerunt; quorum tumultu non magnopere profectum est; quum philosophiam et artes non re ac opere amplificare, sed placita tantum permutare, atque regnum opinionum in se transferre contenderint: exiguo sane fructu, quum inter errores oppositos, errandi causæ sint fere communes. Si qui autem nec alienis, nec propriis

placitis obnoxii, sed libertati faventes, ita animati fuere, ut alios secum simul quærere cuperent; illi sane affectu honesti, sed conatu invalidi fuerunt. Probabiles enim tantum rationes sequuti videntur, et argumentorum vertigine circumagmntur, et promiscua quærendi licentia severitatem inquisitionis enervarunt. Nemo autem reperitur, qui in rebus ipsis et experientia moram fecerit legitimam. Atque nonnulli rursus, qui experientiæ undis se commisere, et fere mechanici facti sunt; tamen in ipsa experientia erraticam quandam inquisitionem exercent, nec ei certa lege militant: quin et plerique pusilla quædam pensa sibi proposuere, pro magno ducentes, si unum aliquod inventum crucre possint; instituto non minus tenui, quam imperito. Nemo enim rei alicujus naturam, in ipsa re recte aut feliciter perscrutatur; verum post laboriosam experimentorum variationem, non acquiescit, sed invenit quod ulterius quærat. Neque illud imprimis omittendum est, quod omnis in experiendo industria, statim ab initio opera quædam destinata præpropero et intempestivo studio captavit; fructifera (inquam) experimenta, non lucifera, quæsivit; nec ordinem divinum imitata est, qui primo die lucem tantum creavit, eique unum diem integrum attribuit; neque illo die quicquam materiati operis produxit, verum sequentibus diebus ad ea descendit. At, qui summas dialecticæ partes tribuerunt, atque inde fidissima scientiis præsidia comparari putarunt, verissime et optime viderunt, intellectum humanum sibi permissum, merito suspectum esse debere. Verum infirmior omnino est malo medicina; nec ipsa mali expers: siquidem dialectica, quæ recepta est, licet ad civilia, et artes, quæ in sermone et opinione positæ sunt, rectissime adhibeatur; naturæ tamen subtilitatem longo intervallo non attingit; et prensando quod non capit, ad errores potius stabiliendos, et quasi figendos, quam ad viam veritati aperiendam valuit.

Quare, ut quæ dicta sunt complectamur, non videtur hominibus aut aliena fides, aut industria propria, circa scientias hactenus feliciter illuxisse; præsertim quum et in demonstrationibus et in experimentis adhuc cognitis, parum sit præsidii. Ædificium autem hujus universi, structura sua, intellectui humano contemplanti, instar labyrinthi est; ubi tot ambigua viarum, tam fallaces rerum et signorum similitudines, tam obliquæ et implexæ naturarum spiræ et nodi, undequaque se ostendunt: iter autem, sub incerto sensus lumine, interdum affulgente, interdum se condente, per experientiæ et rerum particularium sylvas, perpetuo faciendum est. Quin etiam duces itineris (ut dictum est) qui se offerunt, et ipsi implicantur; atque errorum et errantium numerum augent. In rebus tam duris de judicio hominum ex vi propria, aut etiam de facilitate fortuita, desperandum est: neque enim ingeniorum quantacunque excellentia, neque experiendi alea sæpius repetita, ista vincere queat. Vestigia filo regenda sunt: omnisque via, usque a primis ipsis sensuum perceptionibus, certa ratione munienda. Neque hæc ita accipienda sunt, ac si nihil omnino tot seculis, tantis laboribus actum sit: neque enim eorum, quæ inventa sunt, nos pœnitet. Atque antiqui certe in iis, quæ in ingenio et meditatione abstracta posita sunt, mirabiles se viros præstitere. Verum, quemadmodum seculis prioribus, cum homines in navigando per stellarum tantum observationes cursum dirigebant, veteris sane continentis oras legere potuerunt, aut maria aliqua minora et mediterranea trajicere; priusquam autem oceanus trajiceretur, et novi orbis regiones detegerentur, neeesse fuit, usum acus nauticæ, ut ducem viæ magis fidum et certum, innotuisse: simili prorsus ratione, quæ hucusque in artibus et scientiis inventa sunt, ea hujusmodi sunt, ut usu, meditatione, observando, argumentando, reperiri potuerint; utpote quæ sensibus propiora sint et communibus notionibus fere subjaceant: antequam vero ad remotiora et occultiora naturæ liceat appellere, neecssario requiritur, ut melior et perfectior mentis et intellectus humani usus et adoperatio introducatur.

Nos certe æterno veritatis amore devicti, viarum incertis, et arduis, et solitudinibus nos commisimus: et divino auxilio freti et innixi, mentem nostram et contra opinionum violentias et quasi instructas acies, et contra proprias et internas hæsitationes et scrupulos, et contra rerum caligines et nubes, et undequaque volantes phantasias, sustinuimus; ut tandem magis fida et secura indicia viventibus et posteris comparare possemus. Qua in re si quid profecerimus, non alia sane ratio nobis viam aperuit, quam vera et legitima spiritus humani humiliatio. Omnes enim ante nos, qui ad artes inveniendas se applicuerunt, conjectis paulisper in res, et exempla, et experientiam oculis, statim, quasi inventio nil aliud esset, quam quædam excogitatio, spiritus proprios, ut sibi oracula exhiberent, quodammodo invocarunt. Nos vero inter res caste et perpetuo versantes, intellectum longius a rebus non abstrahimus, quam ut rerum imagines et radii (ut in sensu fit) coire possint; unde fit, ut ingenii viribus et excellentiæ non multum relinquatur. Atque quam in inveniendo adhibemus humilitatem, eandem et in docendo sequuti sumus. Neque enim aut confutationum triumphis, aut antiquitatis advocationibus, aut auctoritatis usurpatione quadam, aut etiam obscuritatis velo, aliquam his nostris inventis majestatem imponere aut conciliare conamur; qualia reperire non difficile esset ei, qui nomini suo, non animis aliorum lumen affundere conaretur. Non (inquam) ullam aut vim, aut insidias hominum judiciis fecimus aut paramus; verum eos ad res ipsas, et rerum fœdera adducimus; ut ipsi videant, quid habeant, quid arguant, quid addant, atque in commune conferant. Nos autem, si qua in re vel male credidimus, vel obdormivimus, et minus attendimus, vel deficimus in via, et inquisitionem abrupimus; nihilominus iis modis, res nudas et apertas exhibemus, ut errores nostri, antequam scientiæ massam altius infieiant, notari et separari possint; atque etiam ut facilis et expedita sit laborum nostrorum continuatio. Atque hoc modo, inter empiricam et rationalem facultatem (quarum morosa et inauspicata divortia et repudia, omnia in humana familia turbavere) conjugium verum et legitimum, in perpetuum, nos firmasse existimamus.

Quamobrem, quum hæc arbitrii nostri non sint; in principio operis, ad Deum Patrem, Deum Verbum, Deum Spiritum, preces fundimus humillimas et ardentissimas, ut humani generis ærumnarum memores et

peregrinationis istius vitæ, in qua dies paucos et malos terimus; novis suis eleemosynis, per manus nostras, familiam humanam dotare dignentur. Atque illud insuper supplices rogamus, ne humana divinis officiant; neve ex reseratione viarum sensus, et accensione majore luminis naturalis, aliquid incredulitatis et noctis, animis nostris, erga divina mysteria oboriatur: sed potius, ut ab intellectu puro, a phantasiis et vanitate repurgato, et divinis oraculis nihilominus subdito et prorsus dedititio, fidei dentur, quæ fidei sunt. Postremo, ut scientiæ venemo, a serpente infuso, quo animus humanus tumet et inflatur, deposito, nec altum sapiamus, nec ultra sobrium, sed veritatem in charitate colamus.

Peractis autem votis, ad homines conversi, quædam et salutaria monemus, et æqua postulamus. Monemus primum (quod etiam precati sumus) ut homines sensum in officio, quoad divina, contineant. Sensus enim (instar solis) globi terrestris faciem aperit, cœlestis claudit, et obsignat. Rursus, ne, hujusce mali fuga, in contrarium peccent; quod certe fiet, si naturæ inquisitionem ulla ex parte, veluti interdicto, separatam putant. Neque enim pura illa et immaculata scientia naturalis, per quam Adam nomina ex proprietate rebus imposuit, principium aut occasionem lapsui dedit: sed ambitiosa illa et imperativa scientiæ moralis, de bono et malo dijudicantis, cupiditas, ad hoc ut homo a Deo deficeret, et sibi ipsi leges daret, ea demum ratio atque modus tentationis fuit. De scientiis autem, quæ naturam contemplantur, sanctus ille philosophus pronuntiat, "gloriam Dei esse celare rem; gloriam regis autem rem invenire:" non aliter, ac si divina natura, innocenti et benevolo puerorum ludo delectaretur, qui ideo se abscondunt ut inveniantur; atque animam humanam sibi collusorem in hoc ludo, pro sua in homines indulgentia et bonitate, cooptaverit. Postremo omnes in universum monitos volumus, ut scientiæ veros fines cogitent; nec eam aut animi causa petant, aut ad contentionem, aut ut alios despiciant, aut ad commodum, aut ad famam, aut ad potentiam, aut hujusmodi inferiora, sed ad meritum, et usus vitæ, eamque in charitate perficiant, et regant. Ex appetitu enim potentiæ, angeli lapsi sunt; ex appetitu scientiæ, homines: sed charitatis non est excessus; neque angelus, aut homo, per eam unquam in periculum venit.

Postulata autem nostra, quæ afferimus, talia sunt. De nobis ipsis silemus: de re autem, quæ agitur, petimus; ut homines eam non opinionem, sed opus esse cogitent; ac pro certo habeant, non sectæ nos alicujus, aut placiti, sed utilitatis et amplitudinis humanæ fundamenta moliri. Deinde, ut suis commodis æqui, exutis opinionum zelis et præjudiciis, in commune consulant, ac ab erroribus viarum atque impedimentis, nostris præsidiis et auxiliis, liberati et muniti, laborum, qui restant, et ipsi in partem veniant. Præterea, ut bene sperent, neque "Instaurationem" nostram, ut quiddam infinitum, et ultra mortale, fingant, et animo concipiant; quum revera sit infiniti erroris finis, et terminus legitimus; mortalitatis autem et humanitatis non sit immemor, quum rem non intra unius ætatis curriculum omnino perfici posse confidat, sed successioni destinet; denique scientias, non per arrogantiam in humani ingenii cellulis, sed submisse in mundo majore quærat. Vasta vero, ut plurimum, solent esse, quæ inania: solida contrahuntur maxime, et in parvo sita sunt. Postremo etiam petendum videtur (ne forte quis rei ipsius periculo nobis iniquus esse velit) ut videant homines, quatenus ex eo, quod nobis asserere necesse sit (si modo nobis ipsi constare velimus) de his nostris opinandi, aut sententiam ferendi, sibi jus permissum putent: quum nos omnem istam rationem humanam præmaturam, anticipantem, et a rebus temere, et citius quam oportuit, abstractam (quatenus ad inquisitionem naturæ) ut rem variam, et perturbatam, et male extructam, rejiciamus: neque postulandum est, ut ejus judicio stetur, quæ ipsa in judicium vocatur.

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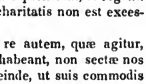

EJUS CONSTITUUNTUR PARTES SEX.

PRIMA,	PARTITIONES SCIENTIARUM.	QUARTA,	SCALA INTELLECTUS.
SECUNDA,	NOVUM ORGANUM, SIVE INDICIA DE INTERPRETATIONE NATURÆ.	QUINTA,	PRODROMI, SIVE ANTICIPATIONES PHILOSOPHIÆ SECUNDÆ.
TERTIA,	PHÆNOMENA UNIVERSI, SIVE HISTORIA NATURALIS ET EXPERIMENTALIS AD CONDENDAM PHILOSOPHIAM.	SEXTA,	PHILOSOPHIA SECUNDA, SIVE SCIENTIA ACTIVA.

SINGULARUM ARGUMENTA.

Pars autem instituti nostri est, ut omnia, quantum fieri potest, aperte et perspicue proponantur. Nuditas enim animi, ut olim corporis, innocentiæ et simplicitatis comes est. Pateat itaque primo ordo operis, atque ratio ejus. Partes operis a nobis constituuntur sex.

Prima pars exhibet scientiæ ejus sive doctrinæ, in cujus possessione humanum genus hactenus versatur, summam, sive descriptionem universalem. Visum enim est nobis, etiam in iis quæ recepta sunt, nonnullam facere moram: eo nimirum consilio, ut facilius et veteribus perfectio, et novis aditus detur.

Pari enim fere studio ferimur et ad vetera excolenda, et ad ulteriora asseqaenda. Pertinet etiam hoc ad faciendam fidem; juxta illud: "Non accipit indoctus verba scientiæ, nisi prius ea dixeris, quæ versantur in corde ejus." Itaque scientiarum atque artium receptarum oras legere, necnon utilia quædam in illas importare, tanquam in transitu, non negligemus.

Partitiones tamen scientiarum adhibemus eas, quæ non tantum jam inventa et nota, sed haetenus omissa et debita compleetantur. Etenim inveniuntur in globo intelleetuali, quemadmodom in terrestri, et culta pariter, et deserta. Itaque nil mirum videri debet, si a divisionibus usitatis quandoque recedamus. Adjeetio enim, dum totum variat, etiam partes earumque sectiones necessario variat: receptæ autem divisiones, receptæ summæ scientiarum, qualis nunc est, tantum competunt.

Circa ea vero, quæ eeu omissa notabimus, ita nos geremus, ut non leves tantum titulos et argumenta eoneisa eorum, quæ desiderantur, proponamns: nam siquid inter omissa retulerimus (modo sit dignioris subjeeti) cujus ratio panlo videatur obscurior (adeo ut merito suspicari possimus, homines non facile intelleetnros, quid nobis velimus, aut quale sit illud opus, qnod animo et cogitatione complectimur): perpetuo nobis curæ erit aut præcepta hujusmodi operis conficiendi, aut etiam partem operis ipsins jam a nobis confeetam, ad exemplum totius subjongere; ut in singulis aut opera aut consilio juvemos. Etenim, etiam ad nostram existimationem, non solum aliorum utilitatem pertinere putavimos; ne quis arbitretur, levem aliquam de istiusmodi rebus notionem mentem nostram perstrinxisse; atque esse illa, quæ desideramus ac prensamus, tanquam votis similia. Ea vero talia sunt, quorum et penes homines (nisi sibi ipsi desint) potestas plane sit, et nos apud nosmet rationem quandam eertam et explicatam habeamus. Neque enim regiones metiri animo, ut augures, auspieiorum causa: sed intrare, ut duces, promerendi studio, suscepimus.

Atque hæc prima operis pars est.

Porro præterveeti artes veteres, intelleetnm humanum ad trajicieadum instruemus. Destinatur itaque parti secundæ, doctrina de meliore et perfectiore usu rationis in rerum inquisitione, et de auxiliis veris intelleetus: ut per hoc (quantum conditio humanitatis ac mortalitatis patitur) exaltetur intelleetus et facultate amplificetur ad naturæ ardaa et obseura superanda. Atque est ea, quam adducimus, ars (quam "Interpretatianem naturæ" appellare consuevimus) ex genere logieæ; licet plurimum, atque adeo immensum quiddam intersit. Nam et ipsa illa logiea vulgaris auxilia et præsidia intellectui moliri ac parare profitetur: et in hoc uno consentiuat. Differt autem plane a vulgari, rebus præcipne tribus: viz. ipso fine, ordine demonstrandi, et inquireadi initiis.

Nam huic nostræ scieatiæ finis propoaitur; ut invenisatur non argumenta, sed artes; aec principiis consentnnea, sed ipsa princeipia; nec rationes probabiles, sed dcsignationes et indicationes aperum. Itaque ex intentione diversa, diversus sequitur effectus. Illie enim adversarius disputatione vincitur et constringitur: hie natura, opere.

Atque cum hujusmodi fine conveniunt demonstrationum ipsarum natura et ordo. In logica enim vulgari opera fere universa circa syllogismum consumitur. De inductione vero dialectiei vix serio eogitasse videntur; levi mentione eam transmittentes, et ad disputandi formulas properantes. At nos demoastratioaem per syllogismum rejicimus, quod confusius agat, et naturam emittat e manibus. Tametsi enim nemini dobium esse possit, quin, quæ in medio termino conveniunt, ea et inter se conveniant (quod est mathematieæ eujusdam certitudiais) nihilominus hoc subest fraudis, quod syllogismus ex propositionibus constet, propositiones ex verbis, verba autem notionum tesseræ et signa sint. Itaque si notiones ipsæ mentis (quæ verborum quasi anima sunt et totius hujusmodi structuræ ac fabricæ basis) male ac temere a rebus abstractæ et vagæ, nec satis definitæ et circumscriptæ, denique multis modis vitiosæ fuerint, omnia ruunt. Rejicimus igitur syllogismum; neque id solum quoad prineipia (ad quæ nec illi eam adhibent) sed etiam quoad propositiooes medias: quas educit sane atque parturit, uteunque syllogismus; sed operum steriles, et a praetiea remotas, et plane quoad partem aetivam scientiarum iaecompetentes. Quamvis igitur relinquamus syllogismo, et hujusmodi demoastrationibus famosis ac jactatis, jurisdictionem in artes populares et opinabiles (nil eoim in hac parte movemus) tamen ad naturam rerum, induetione per omoia, et tam ad minores propositiones, quam ad majores, utimur. Induetionem enim censemos eam esse demonstrandi formam, quæ sensum tuetur, et naturam premit, et operibus immiaet ae fere immiscetur.

Itaque ordo quoque demonstrandi plane invertitur. Adhue enim res ita geri consuevit; ut a sensu et partieularibus primo loco ad maxime generalia advaletur, tanquam ad polos fixos, circa quos disputationes vertantur; ab illis cætera per media deriventur: via eerte compendiaria, sed præcipiti; et ad naturam impervia, ad disputationes vero proclivis et aecommodata. At, secundum nos, axiomata coatiaenter et gradatim exeitantur, ut nonnisi postremo loco ad generalissima veniatur: ea vero generalissima evadunt, non notionalia, sed bene terminata; et talia, quæ natura ut revera sibi notiora agnoscat, quæque rebus hæreaat in medullis.

At in forma ipsa quoque inductionis, et judicio, qnod per eam fit, opus longe maximnm movemus. Ea enim, de qua dialectici loquuntur, quæ procedit per enumerationem simplicem, puerile quiddam est, et preeario concludit, et periculo ab instantia contradictoria exponitur, et consueta tantum intuetur; nec exitum reperit.

Atqui opus est ad scientias inductionis forma tali, quæ experientiam solvat, et separet, et per exclusiones ae rejeetiones debitas necessario coneludat. Quod si judieium illud vulgatum dialeetieorum tam operosum fuerit, et tanta ingenia exercuerit; quanto magis laborandum est in hoc altero, quod non tantum ex mentis penetralibus, sed etiam ex naturæ visceribus extrahitur?

Neque tamen hie fiais. Nam fundamenta quoqae

scientiarum fortius deprimimus et solidamus, atque initis inquirendi altius sumimus, quam adhuc homines fecerant: ea subjiciendo examini, quæ logica vulgaris tanquam fide aliena recipit. Etenim dialectici principia scientiarum a scientiis singulis tanquam mutuo sumunt; rursus notiones mentis primas venerantur: postremo informationibus immediatis sensus bene dispositi acquiescunt. At nos logicam veram, singulas scientiarum provincias, majore cum imperio, quam penes ipsarum principia sit, debere ingredi decrevimus; atque illa ipsa principia putativa ad rationes reddendas compellere, quousque plane constent. Quod vero attinet ad notiones primas intellectus; nihil est eorum, quæ intellectus sibi permissus congessit, quin nobis pro suspecto sit: nec ullo modo ratum, nisi novo judicio se stiterit, et secundum illud pronuntiatum fuerit. Quinetiam sensus ipsius informationes multis modis excutimus. Sensus enim fallunt utique; sed et errores suos indicant: verum errores præsto, indicia eorum longe petita sunt.

Duplex autem est sensus culpa: aut enim destituit nos, aut decipit. Nam primo, plurimæ sunt res, quæ sensum etiam recte dispositum, nec ullo modo impeditum, effugiunt; aut subtilitate totius corporis, aut partium minutiis, aut loci distantia, aut tarditate atque etiam velocitate motus, aut familiaritate objecti, aut alias ob causas. Neque rursus, ubi sensus rem tenet, prehensiones ejus admodum firmæ sunt. Nam testimonium et informatio sensus semper est ex analogia hominis, non ex analogia universi: atque magno prorsus errore asseritur, sensum esse mensuram rerum.

Itaque ut huic occurratur; nos multo et fido ministerio auxilia sensui undique conquisivimus, et contraximus: ut destitutionibus substitutiones, variationibus rectificationes suppeditentur. Neque id molimur tam instrumentis, quam experimentis. Etenim experimentorum longe major est subtilitas, quam sensus ipsius, licet instrumentis exquisitis adjuti: (de iis loquimur experimentis, quæ ad intentionem ejus, quod quæritur, perite, et secundum artem excogitata et apposita sunt). Itaque perceptioni sensus immediatæ ac propriæ non multum tribuimus: sed eo rem deducimus, ut sensus tantum de experimento, experimentum de re judicet. Quare existimamus nos sensus (a quo omnia in naturalibus petenda sunt, nisi forte libeat insanire) antistites religiosos, at oraculorum ejus non imperitos interpretes nos præstitisse: ut alii professione quadam, nos re ipsa sensum teneri ac colere videamur. Atque hujusmodi sunt ea, quæ ad lumen ipsum naturæ, ejusque accensionem et immissionem paramus: quæ per se sufficere possent, si intellectus humanus æquus et instar tabulæ abrasæ esset. Sed cum mentes hominum miris modis aden obsessæ sint, ut ad veros rerum radios excipiendos sincera et polita arca prorsus desit; necessitas quædam incumbit, ut etiam huic rei remedium quærendum esse putemus.

Idola autem, a quibus occupatur mens, vel adscititia sunt, vel innata. Adscititia vero immigrarunt in mentes hominum, vel ex philosophorum placitis et sectis, vel ex perversis legibus demonstrationum. At innata inhærent naturæ ipsius intellectus, qui ad errorem longe proclivior esse deprehenditur, quam sensus. Utcunque enim homines sibi placeant, et in admirationem mentis humanæ ac fere adorationem ruant, illud certissimum est; sicut speculum inæquale rerum radios ex figura et sectione propria immutat; ita et mentem, cum a rebus per sensum patitur, in notionibus suis expediendis et comminiscendis, haud optima fide rerum naturæ suam naturam inserere et immiscere.

Atque priora illa duo idolorum genera, ægre; postrema vero hæc nullo modo evelli possunt. Id tantum relinquitur, ut indicentur; atque ut vis ista mentis insidiatrix notetur et convincatur, ne forte a destructione veterum, novi subinde errorum surculi ex ipsa mala complexione mentis pullulent; eoque res recidat, ut errores non extinguantur, sed permutentur: verum e contra, ut illud tandem in æternum ratum et fixum sit, intellectum nisi per inductionem, ejusque formam legitimam, judicare non posse. Itaque doctrina ista de expurgatione intellectus, ut ipse ad veritatem habilis sit, tribus redargutionibus absolvitur: redargutione philosophiarum, redargutione demonstrationum, et redargutione rationis humanæ nativæ. His vero explicatis, ac postquam demum patuerit, quid rerum natura, quid mentis natura ferat; existimamus nos thalamum mentis et universi, pronuba divina bonitate, stravisse et ornasse. Epithalamii autem votum sit, ut ex eo connubio auxilia humana, et stirps inventorum, quæ necessitates ac miserias hominum aliqua ex parte doment et subigant, suscipiatur. Hæc vero est operis pars secunda.

At vias non solum monstrare et munire, sed inira quoque consilium est. Itaque tertia pars operis complectitur Phænomena Universi; hoc est, omnigenum experientiam, atque historiam naturalem, ejus generis, quæ possit esse ad condendam philosophiam fundamentalis. Neque enim excellens aliqua demonstrandi via, sive naturam interpretandi forma, ut mentem ab errore et lapsu defendere ac sustinere, ita ei materiam ad sciendum præbere et subministrare possit. Verum iis, quibus non conjicere et hariolari, sed invenire at scire propositum est; quique non simiolas et fabulas mundorum comminisci, sed hujus ipsius veri mundi naturam introspicere et velut dissecare in animo habent; omnia a rebus ipsis petenda sunt. Neque huic labori, et inquisitioni, ac mundanæ perambulationi, ulla ingenii, aut meditationis, aut argumentationis substitutio, aut compensatio sufficere potest; non si omnia omnium ingenia coierint. Itaque aut hoc prorsus habendum, aut negotium in perpetuum deserendum. Ad hunc vero usque diem ita cum hominibus actum est, ut minime mirum sit, si natura sui copiam non faciat.

Nam primo, sensus ipsius informatio, et deserens et fallens: observatio, indiligens et inæqualis, et tanquam fortuita; traditio, vana et ex rumore: practica, operi intenta et servilis: vis experimentalis, cæca, stupida, vaga, et præruptn: denique historia naturalis, levis et inops; vitiosissimam materiam intellectui ad philosophiam et scientias congesserunt.

Deinde, præpostera argumentandi subtilitas et

ventilatio, serum rebus plane desperatis tentat remedium: nec negotium ullo modo restituit, aut errores separat. Itaque nulla spes majoris augmenti ac progressus sita est, nisi in restauratione quadam scientiarum.

Hujus autem exordia omnino a naturali historia sumenda sunt, eaque ipsa novi cujusdam generis et apparatus. Frustra enim fuerit speculum expolire, si desint imagines: et plane materia idonea præparanda est intellectui, non solum præsidia fida comparanda. Differt vero rursus historia nostra (quemadmodum logica nostra) ab ea, quæ habetur, multis rebus: fine, sive officio; ipsa mole et congerie; dein subtilitate; etiam delectu, et constitutione in ordine ad ea, quæ sequuntur.

Primo enim eam proponimus historiam naturalem, quæ non tam aut rerum varietate delectet, aut præsenti experimentorum fructu juvet; quam lucem inventioni causarum affundat, et philosophiæ enutricandæ primam mammam præbeat. Licet enim opera, atque activam scientiarum partem præcipue sequamur, tamen messis tempus expectamus, nec muscum et segetem herbidam demetere conamur. Satis enim seimus axiomata recte inventa, tota agmina operum secum trahere; atque opera non sparsim, sed confertim exhibere. Intempestivum autem illum et puerilem affectum, ut pignora aliqua novorum operum propere captentur, prorsus damnamus et amovemus, ceu pomum Atalantæ, quod cursum retardat. Atque historiæ nostræ naturalis officium tale est.

Quoad congeriem vero, conficimus historiam non solum naturæ liberæ ac solutæ (cum scilicet illa sponte fluit, et opus suum peragit; qualis est historia cœlestium, meteororum, terræ et maris, mineralium, plantarum, animalium) sed multo magis naturæ constrictæ et vexatæ; nempe, cum per artem et ministerium humanum de statu suo detruditur, atque premitur et fingitur. Itaque omnia artium mechanicarum, omnia operativæ partis liberalium, omnia practicarum complurium, quæ in artem propriam non coaluerunt, experimenta (quantum inquirere licuit, et quantum ad finem nostrum faciunt) perscribimus. Quin etiam (ut quod res est, eloquamur) fastum hominum et speciosa nil morati, multo plus et operæ et præsidii in hac parte, quam in illa altera, ponimus: quandoquidem natura rerum magis se prodit per vexationes artis, quam in libertate propria.

Neque corporum tantum historiam exhibemus, sed diligentiæ insuper nostræ esse putavimus, etiam virtutum ipsarum (illarum dicimus, quæ tanquam cardinales in natura censeri possint, et in quibus naturæ primordia plane constituuntur; utpote materia primis passionibus ac desideriis; viz. denso, raro, calido, frigido, consistenti, fluido, gravi, levi, aliisque haud paucis) historiam seorsum comparare.

Enimvero, ut de subtilitate dicamus, plane conquirimus genus experimentorum longe subtilius et simplicius, quam sunt ea, quæ occurrunt. Complura enim a tenebris educimus et eruimus, quæ nulli in mentem venisset investigare, nisi qui certo et constanti tramite ad inventionem causarum pergeret; cum in se nullius magnopere sint usus; ut liquido appareat, ea non propter se quæsita esse; sed ita prorsus se habere illa ad res et opera, quemadmodum literæ alphabeti se habeant ad orationem et verba; quæ licet per se inutiles, eædem tamen omnis sermonis elementa sunt.

In delectu autem narrationum et experimentorum melius hominibus cavisse nos arbitramur, quam qui adhuc in historia naturali versati sunt. Nam omnia fide oeculata, aut saltem perspecta, et summa quadam cum severitate recipimus: ita ut nil referatur auctum miraculi causa, sed quæ narramus, a fabulis et vanitate casta et intemerata sint. Quinetiam et receepta quæque ac jactata mendacia (quæ mirabili quodam neglectu per secula multa obtinuerunt, et inveterata sunt) nominatim proscribimus et notamus, ne scientiis amplius molesta sint. Quod enim prudenter animadvertit quidam; fabulas et superstitiones, et nugas, quas nutriculæ pueris instillant, mentes eorum etiam serio depravare: ita eadem nos movit ratio, ut soliciti atque etiam anxii simus, ne ab initio, cum veluti infantiam philosophiæ sub historia naturali tractemus et curemus, illa alicui vanitati assneseat. At in omni experimento novo et paulo subtiliore, licet (ut nobis videtur) certo ac probato, modum tamen experimenti, quo usi sumus, aperte subjunginmus: ut, postquam patefactum sit, quomodo singula nobis constiterint, videant homines quid erroris subesse et adhærere possit; atque ad probationes magis fidas, et magis exquisitas (si quæ sint) expergiscantur: denique ubique monita, et scrupulos, et cautiones aspergimus, religione quadam, et tanquam exorcismo omnia phantasmata ejicientes, ae eohibentes.

Postremo, eum nobis exploratum sit, quantopere experientia et historia aciem mentis humanæ disgreget; et quam difficile sit (præsertim animis vel teneris, vel præoccupatis) a principio cum natura consuescere; adjungimus sæpius observationes nostras, tanquam primas quasdam conversiones et inclinationes, ae veluti aspectus historiæ ad philosophiam: ut et pignoris loco hominibus sint, eos in historiæ fluctibus perpetuo non detentum iri; utque, cum ad opus intellectus deveniatur, omnia sint magis in procinctu. Atque per hujusmodi (qualem describimus) historiam naturalem, aditum quendam fieri posse ad naturam tutum et eommodum; atque materiam intelleetui præberi probam et præparatam eensemus.

Postquam vero et intellectum fidissimis auxiliis ac præsidiis stipavimus, et justum divinorum operum exercitum severissimo deleetu comparavimus; nil amplius superesse videtur, nisi ut philosophiam ipsam aggrediamur. Attamen in re tam ardua et suspensa sunt quædam, quæ necessario videntur interponenda; partim doeendi gratia, partim in usum præsentem.

Horum primum est, ut exempla proponantur inquirendi et inveniendi, secundum nostram rationem ac viam, in aliquibus subjectis repræsentata: sumendo ea potissimum subjeeta, quæ et inter ea, quæ quæruntur, sunt nobilissima, et inter se maxime diversa; ut in unoquoque genere exemplum non desit. Neque de iis exemplis loquimur, quæ singulis præceptis ac regulis, illustrandi gratia, adjiciuntur (hoc enim in

secunda parte operis abunde præstitimus) sed plane typos intelligimus et plasmata, quæ universum mentis processum, atque inveniendi continuatam fabricam et ordinem in certis subjectis, iisque variis et insignibus, tanquam sub oculos ponant. Etenim nobis in mentem venit, in mathematicis, astante machina, æqui demonstrationem facilem et perspicuam: contra, absque hac commoditate, omnia videri involuta, et, quam revera sunt, subtiliora. Itaque hujusmodi exemplis quartam partem nostri operis attribuimus: quæ revera nil aliud est, quam secundæ partis applicatio particularis et explicata.

At quinta pars ad tempus tantum, donec reliqua perficiantur, adhibetur: et tanquam fœnus redditur, usque dum sors haberi possit. Neque enim finem nostrum ita petimus occæcati; ut, quæ occurrunt in via utilia, negligamus. Quamobrem quintam partem operis ex iis conficimus, quæ a nobis aut inventa, aut probata, aut addita sunt: neque id tamen ex rationibus atque præscriptis interpretandi; sed ex eodem intellectus usu, quem alii in inquirendo et inveniendo adhibere consueverunt. Etenim eum, ex perpetua nostra cum natura consuetudine, majora de meditationibus nostris, quam pro ingenii viribus, speramus; tum poterunt ista veluti tabernaculorum in via positorum vice fungi, ut mens ad certiora contendens in iis paulisper acquiescat. Attamen testamur interim, nos illis ipsis, quod ex vera interpretandi forma non sint inventa, aut probata, teneri minime velle. Istam vero judicii suspensionem, non est quod exhorreat quispiam in doctrina, quæ non simpliciter nil sciri posse, sed nil nisi certo ordine et certa via sciri posse asserit: atque interea tamen certos certitudinis gradus ad usum et levamen constituit; donec mens in causarum explicatione consistat. Neque enim illæ ipsæ scholæ philosophorum, qui Acatalepsiam simpliciter tenuerunt, inferiores fuere iatis, quæ pronuntiandi licentiam usurparunt. Illæ tamen sensui et intellectui auxilia non paraverunt, quod nos fecimus: sed fidem et auctoritatem plane sustulerunt; quod longe alia res est, et fere opposita.

Sexta tandem pars operis nostri (cui reliquæ inserviunt ac ministrant) eam demum recludit et proponit philosophiam, quæ ex hujusmodi (qualem ante docuimus et paravimus) inquisitione legitima, et casta, et severa educitur et constituitur. Hanc vero postremam partem perficere et ad exitum perducere, res est et supra vires, et ultra spes nostras collocata. Nos ei initia (ut speramus) non contemnanda, exitum generis humani fortuna dabit; qualem forte homines, in hoc rerum et animorum statu, haud facile animo capere aut metiri queant. Neque enim agitur solum felicitas contemplativa, sed vere res humanæ et fortunæ, atque omnis operum potentia. Homo enim, naturæ minister et interpres, tantum facit et intelligit, quantum de naturæ ordine, opere, vel mente, observaverit: nec amplius scit, aut potest. Neque enim nllæ vires causarum catenam solvere aut perfringere possunt: neque natura aliter, quam parendo, vincitur. Itaque intentiones geminæ illæ, humanæ scilicet scientiæ et potentiæ, vere in idem coincidunt: et frustratio operum maxime fit ex ignoratione causarum.

Atque in eo sunt omnia, siquis oculos mentis a rebus ipsis nunquam dejiciens, earum imagines plane ut sunt, excipiat. Neque enim hoc siverit Deus, ut phantasiæ nostræ somnium pro exemplari mundi edamus: sed potius benigne faveat, ut apocalypsim, ac veram visionem vestigiorum et sigillorum Creatoris super creaturas, scribamus.

Itaque tu, Pater, qui lucem visibilem primitias creaturæ dedisti, et lucem intellectualem ad fastigium operum tuorum in faciem hominis inspirasti; opus hoc, quod a tua bonitate profectum, tuam gloriam repetit, tuere et rege. Tu, postquam conversus es ad spectandum opera, quæ fecerunt manus tuæ, vidisti quod omnia essent bona valde; et requievisti. At homo, conversus ad opera, quæ fecerunt manus suæ, vidit quod omnia essent vanitas et vexatio spiritus; nec ullo modo requievit. Quare si in operibus tuis sudabimus, facies nos visionis tuæ et sabbati tui participes. Supplices petimus, ut hæc mens nobis constet: ntque novis eleemosynis per manus nostras et aliorum, quibus eandem mentem largieris, familiam humanam dotatam velis.

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LECTORI S.

Cum Domino meo placuerit, eo me dignari honore, ut in edendis operibus suis opera mea naus sit; non abs re fore existimavi, si lectorem de aliquibus, quæ ad hunc primum tomum pertinent, breviter moneam. Tractatum istum, "De dignitate et augmentis Scientiarum," ante annos octodecim, edidit dominatio sua, lingua patria, in duos tantummodo libros distributum; et regiæ suæ majestati dicavit, quod et nunc facit. Non ita pridem animum adjecit, ut in Latinam linguam verteretur: inaudiverat siquidem illud apud exteros expeti: quinetiam solebat subinde dicere, libros modernis linguis conscriptos, non ita

multo post decocturos. Ejus igitur translationem, ab insignioribus quibusdam eloquentiæ viris elaboratam, propria quoque recensione castigatam, jam emittit. Ac liber primus certe, quasi mera translatio est, in paucis admodum mutatus: at reliqui octo, qui partitiones scientiarum tradunt, atque unico ante libro continebantur, ut novum opus, et nunc primum editum, prodit. Causa autem præcipua, quæ dominationem suam movit, ut opus hoc retractaret, et in plurimis amplificaret, ea fuit; quod in "Instauratione Magna" (quam diu postea edidit) Partitiones scientiarum, pro prima "Instaurationis" parte constituit; quam sequeretur "Novum Organum;" dein "Historia Naturalis;" et sic deinceps. Cum igitur reperiret partem eam de Partitionibus scientiarum jam pridem elaboratam (licet minus solide quam argumenti dignitas postularet) optimum fore putavit, si retractaretur, et redigeretur in opus justum et completum. Atque hoc pacto, fidem suam liberari intelligit, de prima parte "Instaurationis" præstitam. Quantum ad opus ipsum, non est tenuitatis meæ, de eo aliquid præfari. Præconium ei, quod optime conveniat, existimo futurum illud, quod Demostheues interdum dicere solebat de rebus gestis Atheniensium veterum; "Laudatorem iis dignum esse solummodo tempus." Deum Opt. Max. obnixe precor, ut, pro dignitate operis, fructus uberes diuturnique et auctori et lectori contingant.

FRANCISCI

BARONIS DE VERULAMIO, VICE-COMITIS SANCTI ALBANI,

DE

DIGNITATE ET AUGMENTIS SCIENTIARUM.

LIBER PRIMUS

AD REGEM SUUM.

Sub veteri lege, rex optime, erant et spontaneæ oblationes, et quotidianæ sacrificia; hæc ex rituali cultu, illæ ex pia alacritate profectæ. Arbitror equidem deberi tale quidpiam regibus a servis suis; ut scilicet quisque non solum muneris sui tributa, sed et amoris pignora deferat. Atque in prioribus illis spero me minime defuturum; in posteriori autem genere dubitavi, quid potissimum sumerem: satius autem visum est, hujusmodi aliquid deligere, quod potius ad personæ tuæ excellentiam, quam ad negotia coronæ spectaret.

Ego sæpissime de majestate tua, ut debeo, cogitans (missis aliis sive virtutis, sive fortunæ tuæ dotibus) magna prorsus afficior admiratione, cum intueor excellentiam earum in te virtutum, facultatumque, quas philosophi intellectuales vocant: capacitatem ingenii tot et tanta complexam, firmitudinem memoriæ, prehensionis velocitatem, judicii penetrationem, elocutionisque ordinem simul et facilitatem. Subit profecto animum quandoque dogma illud Platonicum, quo asseritur, "Scientiam nihil aliud esse, quam reminiscentiam; animumque naturaliter omnia cognoscere, nativæ luci, quam specus corporis obumbraverat, subinde redditam." Certe hujus rei (si in quo alio) relucet in majestate tua exemplum insigne; cui adeo prompta est mens ad concipiendam flammam, ubi vel levissima eam excitaverit objecta occasio, vel minima alicuæ cognitionis scintilla affulserit. Quemadmodum igitur, de regum sapientissimo, sacra perhibet Scriptura, "Cor illi fuisse, tanquam arenam maris:" cujus quanquam massa prægrandis, partes tamen minutissimæ; sic mentis indidit Deus majestati tuæ erasim plane mirabilem, quæ eum maxima quæque complectatur, minima tamen prehendat, nec patiatur effluere: cum perdifficile videatur, vel potius impossibile in natura, ut idem instrumentum et graudia opera, et pusilla apte disponat. Quantum ad elocutionem tuam, occurrit illud Cornelii Taciti de Augusto Cæsare; "Augusto," inquit, "profluens, et quæ principem virum deceret, eloquentia fuit." Sane si recte rem perpendamus, omnis oratio aut laboriosa, aut affectata, aut imitatrix, quamvis alioquin excellens, nescio quid servile olet, nec sui juris est. Tuum autem dicendi genus vere regium est, profluens tanquam a fonte, et nihilominus, sicut naturæ ordo postulat, rivis diductum suis, plenum facilitatis felicitatisque, imitans nemiuem, nemini imitabile. Atque sicut in rebus tuis, quæ tam ad regnum quam ad domum tuam spectant, virtus videtur cum fortuna certare; mores scilicet optimi cum felici regimine; spes tuæ olim patienter et pie cohibitæ, cum fausta et opportuna speratorum adeptione; thori conjugalis sancta fides, cum fructu conjugii beato, in sobole pulcherrima; pia, et principe Christiano dignissima ad pacem propensio, cum simili vicinorum principum inclinatione, in idem votum feliciter conspirantium: sic et in intellectus tui dotibus non levior exoritur lis et æmulatio, si eas, quæ a natura ipsa præbitæ sunt et infusæ, cum instructissima gaza multiplicis eruditionis, et plurimarum artium scientia committamus. Neque vero facile fuerit, regem aliquem post Chris-

tum natum reperire, qui fuerit Majestati tuæ literarum divinarum et humanarum varietate, et cultura comparandus. Percurrat, qui voluerit, imperatorum et rerum seriem, et juxta mecum sentiet. Magnum certe quiddam præstare reges videntur, si delibantes aliorum ingenia ex compendio sapiant, aut in cortice doctrinæ aliquatenus hæreant, aut denique literatos ament evehantque. At regem, et regem natum, veros eruditionis fontes hausisse, imo ipsummet fontem eruditionis esse, prope abest a miraculo. Tuæ vero Majestati etiam illud accedit, quod in eodem pectoris tui scrinio sacræ literæ cum profanis recondantur; adeo ut, cum Hermete illo Trismegisto, triplici gloria insigniaris, potestate regis, illuminatione sacerdotis, eruditione philosophi. Cum igitur alios reges longe hac laude (proprie quæ tua est) superes; æquum est, ut non solum præsentis seculi fama, et admiratione celebretur, aut etiam historiarum lumine posteritati transmittatur, verum ut solido aliquo in opere incidatur, quod et regis magni potentiam denotet, et regis tam insigniter docti imaginem referat.

Quare (ut ad inceptum revertar) nulla potior mihi visa est oblatio, quam tractatus aliquis eo spectans. Hujus argumentum duabus constabit partibus. In priori (quæ levior est, neque tamen ullo modo prætermittenda) de scientiæ et literarum per omnia excellentia agendum est; et simul de merito eorum, qui in iisdem provehendis operam strenue et eum judicio impendunt. Posterior vero pars (quod caput rei est) proponet, quid in hoc genere huc usque actum sit, et perfectum; insuper et ea perstringet quæ videntur desiderari; ut quamvis non ausim seponere aut deligere, tuæ quod præcipue Majestati commendem, tamen multa et varia repræsentando, regias tuas cogitationes excitare possim, ut proprios pectoris tui thesauros excutias, atque inde pro magnanimitate tua atque sapientia, optima quæque, ad artium et scientiarum terminos proferendos, depromas.

In ipso vestibulo prioris partis, ad purgandam viam, et quasi indicendum silentium, quo melius audiantur testimonia de dignitate literarum, absque oblatratione tacitarum objectionum, statui primo loco liberare literas opprobriis et vilipendiis, quibus impetit eas ignorantia; sed ignorantia, sub non uno schemate: modo in theologorum zelotypia, modo in politicorum supercilio, modo in ipsorum literatorum erroribus sese ostentans, et prodens. Audio primos dicentes, scientiam inter ea esse, quæ parce cauteque admittenda sunt: scientiæ nimium appetitum fuisse primum peccatum, unde hominis lapsus; hodieque hærere serpentinum quid in ea, siquidem ingrediens tumorem induerit; "Scientia inflat:" Salomonem censere, "Faciendi libros nullum esse finem, multamque lectionem carnis esse afflictionem;" et alibi, "In multa sapientia multam esse indignationem:" et "Qui auget scientiam, augere et dolorem;" D. Pauli monitum esse, "Ne decipiamur per inanem philosophiam:" quin et experientia notum esse, doctissimos viros, hæretieorum Coryphæos, doctissima secula in atheismum proclivia fuisse; contemplationem denique secundarum causarum auctoritati primæ causæ derogare.

Ut igitur falsitatem hujus dogmatis, fundamentaque ejus male jacta aperiamus; cuivis obviam est istos non percipere, scientiam, quæ lapsum peperit, non fuisse puram illam primigeniamque scientiam naturalem, cujus lumine homo animalibus, in paradiso adductis, nomina ex natura imposuit; sed superbam illam *boni et mali*, per quam excutere Deum, sibique ipse legem figere ambivit. Neque certe vis ulla scientiæ, quanta quanta sit, inflat mentem, cum nihil implere animum, nedum distendere possit, præter Deum, Deique contemplationem. Quare Salomon, de duobus palmariis inventionis sensibus (visu atque auditu) loquens; ait, "Oculum videndo, aurem audiendo non satiari." Quod si non sit impletio, sequitur, continens majus esse contento. Haud aliter de scientia ipsa, animoque humano (cui sensus sunt tanquam emissarii) definit his verbis, quæ calendario suo ephemeridique, omnium rerum tempora describenti, subnectit, ita concludens; "Omnia Deus condidit, ut unumquodque pulchrum sit in tempore suo: mundum quoque ipsum indidit cordi eorum: invenire tamen homo non potest opus, quod operatus est Deus, ab initio usque ad finem." Quibus verbis haud obscure innuit, Deum fabricatum esse animum humanum instar speculi, totius mundi capacem, ejusque non minus sitientem, quam oculum luminis: neque gestientem solum conspicere varietates vicissitudinesque temporum, verum etiam perscrutandi explorandique immotas atque inviolabiles naturæ leges, et decreta, ambitiosum. Et quamvis innuere videatur, summam illam naturæ œconomiam (quam appellat "Opus, quod operatur Deus, ab initio usque ad finem") non posse inveniri ab homine; hoc non detrahit captui humano, sed in impedimenta doctrinæ rejiciendum; qualia sunt vitæ brevitas, studiorum divortia, scientiarum traditio prava et infida, plurimaque alia incommoda, quibus humana conditio irretitur: siquidem nullam universi partem ab humana disquisitione alienam esse, satis clare alibi docet, inquiens, "Spiritus hominis est tanquam lucerna Dei," qua intima arcana explorat. Quare si tanta sit amplitudo captus humani, manifestum est, nullum esse periculum a quantitate scientiæ, ut ut diffusa, ne aut tumorem indueat, aut excessum: sed a qualitate tantum, quæ quantulacunque sit, si absque antidoto sua sumatur, malignum quid habet, atque venenosum, flatuosis symptomatis plenissimum. Hæc antidotus, sive aroma (cujus mixtio temperat scientiam, eamque saluberrimam effieit) est charitas. Quod etiam priori clausulæ subjungit Apostolus, dicens, "Scientia inflat, charitas autem ædificat." Cui consonum est, quod alibi docet: "Si," inquit, "linguis loquar angelorum, vel hominum, charitatem autem non habeam, factus sum velut æs resonans, aut cymbalum tinniens." Non quin eximium quid sit loqui linguis angelorum et hominum, sed quia, si segregetur a charitate, neque ad commune humani generis bonum dirigatur, potius inanem gloriam exhibebit, quam solidum fruetum. Censuram quod attinet Salomonis, de excessu legendi scribendique libros, et cruciatu spiritus e scientia oriundo; monitumque etiam Paulinum, "Ne decipiamur per inanem philosophiam:" si recte explieentur ea loca, optime ostendent veros cancellos,

et limites, quibus humana scientia circumsepitur; ita tamen ut liberum sit ei, absque omni coarctatione universam rerum naturam amplecti. Sunt enim limites tres. Primus, ne ita felicitatem collocemus in scientia, ut interim mortalitatis nostræ oblivio subrepat. Secundus, ne sic utamur scientia, ut anxietatem pariat, non animi tranquillitatem. Tertius, ne putemus, posse nos, per naturæ contemplationem, mysteria divina assequi. Nam quantum ad primum, optime in eodem libro alibi se Salomon explicat: "Satis," inquit, "perspexi, sapientiam tantum recedere a stultitiâ, quantum lucem a tenebris. Sapientis oculi in capite ejus, stultus in tenebris oberrat; sed simul didici moriendi necessitatem utrique esse communem." De secundo certum est, nullam animi anxietatem, aut perturbationem oriri e scientia, nisi tantum per accidens. Omnis enim scientia, et admiratio (quæ et semen scientiæ), per se jucunda est. Cum autem conclusiones inde deducuntur, quæ oblique rebus nostris applicatæ, vel infirmos metus gignunt, vel immodicas cupiditates, tum demum nascitur cruciatus ille, et perturbatio mentis, qua de loquimur: tunc enim scientia non est amplius lumen siccum (ut voluit Heraclitus ille obscurus, "Lumen siccum optima anima"); sed fit lumen madidum, atque humoribus affectuum maceratum. Tertia regula accuratiorem paulo disquisitionem postulat, neque sicco pede prætereunda est. Siquis enim ex rerum sensibilium et materiatarum intuitu, tantum luminis assequi speret, quantum ad patefaciendam divinam naturam, aut voluntatem sufficiet, næ iste decipitur per inanem philosophiam. Etenim contemplatio creaturarum, quantum ad creaturas ipsas, producit scientiam; quantum ad Deum, admirationem tantum; quæ est quasi abrupta scientia. Ideoque scitissime dixit quidam Platonicus; "Sensus humanos solem referre, qui quidem revelat terrestrem globum, cœlestem vero et stellas obsignat." Sic sensus reserant naturalia, divina occludunt. Atque hinc evenit, nonnullos e doctiorum manipulo in hæresin lapsos esse, quum, ceratis sensuum aliis innixi, ad divina evolare contenderent. Namque eos, qui autumant nimiam scientiam inclinare mentem in atheismum, ignorantiamque secundarum causarum pietati erga primam obstetricari, libenter compellarem Jobi quæstione: "An oporteat mentiri pro Deo, et ejus gratia dolum loqui conveniat, ut ipsi gratificemur?" Liquet enim, Deum nihil operari ordinario in natura, nisi per secundas causas, eujus diversum credi si vellent, impostura mera esset, quasi in gratiam Dei, et nihil aliud, quam auctori veritatis immundam mendacii hostiam immolare. Quin potius certissimum est, atque experientia comprobatum, leves gustus in philosophia movere fortasse ad atheismum, sed pleniores haustus ad religionem reducere. Namque in limine philosophiæ, cum secundæ causæ, tanquam sensibus proximæ, ingerant se menti humanæ, mensque ipsa in illis hæreat atque commoretur, oblivio primæ causæ obrepere possit: sin quis ulterius pergat, causarumque dependentiam, seriem, et concatenationem, atque opera providentiæ intueatur, tunc, secundum poëtarum mythologiam, facile credet summum naturalis catenæ annulum pedi solii Jovis affigi. Ut semel dicam, nemo, male applicatæ sobrietatis moderationisque famam captans, posse nos nimium progredi, in libris sive Scripturarum, sive creaturarum, theologia, aut philosophia, existimet; quinimo excitent se homines, et infinitos profectus audaeter urgeant utrobique, et persequantur; caventes tantum ne scientia utantur ad tumorem, non ad charitatem, ad ostentationem, non ad usum; et rursus, ne distinctas illas theologiæ philosophiæque doctrinas, earumque latices imperite misceant ac confundant.

Accedamus nunc ad opprobria, quibus literas aspergunt politici. Illa ejusmodi sunt: artes emollire animos, militarique gloriæ ineptos reddere: tum in politicis quoque corrumpere ingenia; quæ vel nimis curiosa efficiunt ex varietate lectionis; vel nimis pertinacia ex rigore regularum; vel nimis tumida ex magnitudine exemplorum; vel nimis extravagantia ex dissimilitudine exemplorum; quin saltem utennque avertere, et alienare animos a negotiis, et actione, otii ac secessus amorem instillantes: dein rebusqpublicis inducere disciplinæ relaxationem, dum unusquisque promptior est ad disputandum, quam ad obtemperandum. Unde Cato Censorius, cum primis mortalium sapiens, ubi juventus Romana ad Carneadem philosophum, qui venerat Romam legatus, dulcedine atque majestate eloquentiæ ejus capta, undique conflueret, frequenti senatu auctor fuit, ut, expeditis negotiis, primo quoque tempore dimitteret hominem, ne civium animos inficeret, et fascinaret, et nec opinantibus morum consuetudinumque patriarum mutationem induceret. Hoc etiam pernovit Virgilium (dum studia sua patriæ existimationi posthaberet) ut artes politicas a literariis segregaret; illas Romanis vendicans, has Græcis relinquens, in versibus illis decantatis:

> Tu regere imperio populos, Romane, memento:
> Hæ tibi erunt artes. Æn. vi. 851.

Videmus etiam Anytum, Socratis accusatorem, pro crimine ei objecisse, quod vi et varietate sermonum, ac disputationum suarum, auctoritatem et reverentiam legum consuetudinumque patriarum, apud adolescentes imminueret; quodque artem profiteretur perniciosam et periculo plenam, qua quis instructus, deteriorem eausam meliorem faceret, veritatemque ipsam eloquentiæ apparatu obrueret.

Verum hæ criminationes, cæteræque ejusdem farinæ, potius personatam gravitatem præ se ferunt, quam veritatis eandorem. Testatur enim experientia, sient unos atque eosdem homines, sic una eademque tempora, et rerum bellicarum, et optimarum artium gloria florusse. Viros quod attinet, exemplo sit nobile par imperatorum, Alexander Magnus, et Julius Cæsar dictator, alter Aristotelis in philosophia discipulus, alter Ciceronis in dicendo rivalis. Aut si quis requirat potius literatos, qui in claros imperatores evaserint, quam imperatores, qui insigniter doeti fuerunt; præsto est Epaminondas Thebanus, aut Xenophon Atheniensis: quorum ille primus fuit, qui fregit potentiam Spartanorum; hic autem primus, qui stravit viam ad eversionem monarchiæ Persarum. Istud vero armorum literarumque quasi conjugium, clarius adhuc in temporibus, quam

ia personis, elucescit, quanto nimirum seculum homine objectum grandius est. Ipsa quippe eademque tempora, apud Ægyptios, Assyrios, Persas, Græcos, Romanosque, quæ propter bellicam virtutem maxime celebrantur, etiam et literis plurimum fuerunt nobilitata; adeo ut gravissimi auctores philosophique, et clarissimi duces atque imperatores, eodem seculo vixerint. Nec sane aliter fieri potest: quandoquidem ut in homine vigor corporis animique simul fere maturescunt, nisi quod ille hunc paulo antevertat; sic in rebuspublicis militaris gloria literataque (quarum illa corpori respondet, hæc animo) aut coæva sunt, aut se proxime consequuntur.

Jam vero, eruditionem politicis impedimento esse potius quam adjumento, nil minus probabile. Fatemur omnes, temerarium quiddam esse empiricis medicis corpus et valetudinis curam tradere; qui solent pauca quædam medicamenta, quæ illis videntur panchresta, venditare, quorum fiducia nihil non audent tentare: cum tamen neque causas morborum, neque ægrotorum habitus, neque symptomatum pericula, neque veram sanandi methodum calleant. Videmus pariter errare eos, qui ad causas et lites suas expediendas adhibent leguleios, in practica potius, quam in libris juris versatos, quibus os facile oblinitur, si quid novum, aut extra experientiæ suæ calles tritos occurrat: consimiliter non potest non esse periculosissimum, quoties summa rerum empiricis consiliariis præcipue mandatur. E contra, vix exemplum adduci possit reipublicæ infeliciter administratæ, ad clavum sedentibus viris eruditis. Quamvis enim in more sit politicis, literatos pedaneorum nomine elevare; historia tamen, veritatis magistra, in plurimis fidem facit, pupillares principes adultis longe præstitisse (non obstante ætatis incommodo) ea ipsa de causa, quam politici sugillant, quod scilicet tunc temporis a pædagogis administratum sit imperium. Quis ignorat, per decantatum illud quinquennium Neronis, onus rerum incubuisse Senecæ pædagogo? Quin et Gordianus junior decenniam laudis Misitheo pædagogo debuit. Neque infelicius imperium gessit Severus Alexander, dum minor fuit: quo tempore omnia procurabant mulieres, sed ex consilio præceptorum. Imo convertamus oculos ad regimen pontificium, ac nominatim Pii Quinti vel Sixti Quinti, nostro seculo, qui sub initiis suis habiti sunt pro fraterculis rerum imperitis: reperiemusque acta paparum ejus generis magis esse solere memorabilia, quam eorum, qui in negotiis civilibus et principum aulis enutriti ad papatum ascenderint. Quamvis enim, qui in literis vitam maxime traduxerunt minus solertes sint atque versatiles in occasionibus prensandis, atque accommodandis rebus; qua spectant ea, quæ ab Italis *regioni di stato* dicuntur, quorum numen ipsum aversatus est Pius Quintus, solitus dicere; "Esse mera malorum hominum commenta, quæ opponerentur religioni, et virtutibus moralibus;" in eo tamen abunde fit compensatio, quod per tutum planumque iter religionis, justitiæ, honestatis, virtutumque moralium prompte atque expedite incedant: quam viam qui constanter tenuerint, illis alteris remediis non magis indigebunt, quam corpus sanum medicina. Porro autem curriculum vitæ in uno homine suppeditare non potest exemplorum copiam, ad regendos eventus vitæ, etiam in uno homine. Sicut enim interdum fit ut nepos vel pronepos, avum vel proavum magis referat, quam patrem; eodem modo haud raro evenit, ut negotia præsentia magis quadrent cum exemplis vetustioribus, quam cum recentioribus. Postremo unius ingenium tantum cedit amplitudini literarum, quantum privati reditus ærario.

Quod si detur, depravationes illas et impedimenta, quæ a politicis imputantur literis, aliquid virium habere et veritatis; attamen simul monendum, eruditionem in singulis plus remedii, quam mali, afferre. Esto enim, literæ tacitu quadam vi animum reddunt incertum atque perplexum; at certe liquido præcipiunt quomodo cogitationes sint expediendæ, et quousque sit deliberandum, quando demum statuendum; imo ostendunt, quomodo res interim absque periculo trahi possint, et suspendi. Esto etiam, animos efficiunt magis pertinaces, et difficiles; at simul docent, quæ res demonstrationibus, quæ conjecturis innituntur; neque minus distinctionum et exceptionum usum, quam canonum et principiorum constantiam, proponunt. Esto rursus, seducunt et detorquent animos exemplorum vel imparitate vel dissimilitudine; nescio; sed satis novi, eas, tam circumstantiarum efficacias, quam comparationum errores, et applicationum cautiones, explicare; adeo ut in universum magis corrigant animos, quam corrumpant. Hæc autem remedia insinuant undequaque literæ, magna vi, et varietate exemplorum. Perpendat quis errores Clementis septimi, a Gnicciardino, qui ei fuit quasi domesticus, tam inculenter depictos; aut vacillationes Ciceronis, in epistolis ad Atticum, manu propria ad vivum resectas; omnino inconstantiam et crebras consiliorum mutationes vitabit: inspiciat errores Phocionis; pervicaciam exhorrebit: fabulam Ixionis legat; et nimias spes, et hujusmodi fumos, ac nebulas dispellet: intueatur Catonem secundum; neque unquam migrabit ad antipodas, et contraria præsenti seculo vestigia figet.

Jam qui putant literas desidiæ amicas esse, otiique et secessus dulcedine perfundere animum; mirum præstabunt, si, quæ assuefaciunt mentem perpetuæ agitationi, socordiæ patronas ostendant: cum contra vere affirmari possit, inter omnia hominum genera nullum negotia amare propter ipsa negotia, præter literatum. Alii enim res et negotia diligunt quæstus gratia, ut conductitii opus propter mercedem: alii honoris ergo; etenim dum res gerunt, vivunt in oculis hominum, existimationique suæ inserviunt, alioqui evanituræ: alii propter potentiam, et fortunæ prærogativam, ut amicos remunerare, inimicos ulcisci possint: alii ut facultatem aliquam suam, quam adamant, exerceant, ac sibi ipsis hoc nomine sæpius gratulentur, et arrideant: alii denique ut alios suos fines consequantur. Adeo ut, quod de gloriosis dici solet, eorum fortitudinem sitam esse in spectantium oculis, sic hujusmodi hominum diligentia et strenuitas hoc videtur agere, aut ut alii plaudant, aut ut ipsi intra se gestiant. Soli literati negotiis et occupationibus delectantur, tanquam actionibus naturæ consentaneis, et non minus salubribus animo, quam exercitatio est corpori, ipsam rem, non emolumentum, intuentes: ita ut omnium minime sint defatigabiles,

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si modo res sit hujusmodi, ut animum pro dignitate ejus impleat, et detineat. Quod si reperiantur interdum nonnulli, in legendo strenui, in agendo cessatores; non hoc a literis ortum habet, sed imbecillitate et mollitie quadam corporis animive; quales notat Seneca: "Quidam," inquit, "tam sunt umbratiles, ut putent in turbido esse, quicquid in luce est." Usurvenire poterit fortasse, ut hujusmodi ingenii sibi conscii, se dent literis; eruditio autem ipsa hujusmodi ingenia minime indit, aut progignit. Quod si quis illud nihilominus mordicus teneat, literas nimium absumere temporis, quod alias rectius impendi possit; aio, neminem adeo distringi negotiis, quin habeat sua otii intervalla, donec agendi vices atque æstus refluant, nisi aut admodum hebes sit in expediendis negotiis, aut parum eum dignitate ambitiosus in negotiis cujuscunque generis captandis. Restat igitur quærendum, qua in re et quomodo has subsecivas horas collocare oporteat; studiis an voluptatibus, genio an ingenio indulgendum. Sicut recte respondit Demosthenes Æschini, homini voluptatibus dedito: qui eum per contumeliam objecisset, "Orationes ejus lucernam olere: Pol," inquit, "multum interest inter ea, quæ ego ac tu ad lucernam facimus." Quare nentiquam metuendum, ne literæ eliminent negotia; quin potius vindicent animum ab otio et voluptate, quæ alias sensim ad utriusque damnum, et negotiorum, et literarum, subintrare solent.

Dein, quod oggerunt, literas reverentiam legum atque imperii convellere, calumnia mera est, nec probabiliter ad criminandum inducta. Nam qui cæcam obedientiam fortius obligare contenderit, quam officium oculatum; una opera asserat, cæcum manu ductum certius incedere, quam qui luce et oculis utitur. Immo citra omnem controversiam, artes emolliunt mores, teneros reddunt, sequaces, cereos, et ad mandata imperii ductiles: ignorantia contra, contumaces, refractarios, seditiosos: quod ex historia clarissime patet, quandoquidem tempora maxime inlocta, inculta, barbara, tumultibus, seditionibus, mutationibusque maxime obnoxia fuerint.

De Catonis Censoris judicio, hoc dictum esto, merritissimas eum blasphemiæ in literas luisse pœnas, cum septuagenario major, quasi repuerasceus, Græcam linguam cupidissime addisceret. Ex quo liquet, priorem illum censurum Græcæ literaturæ, ex affectata potius gravitate, quam quod ita penitus sentiret, fluxisse. Ad Virgilii vero carmina quod attinet, utcunque illi libitum fuerit universo mundo insultare, Romanis asserendo artes imperandi, cæteras tanquam populares aliis relinquendo; in hoc tamen manifesto tenetur, Romanos nunquam imperii fastigium conscendisse, donec ad artium culmen simul pervenissent. Namque duobus primis Cæsaribus, viris imperandi peritissimis, contemporanei erant optimus poëta ille ipse Virgilius Maro, optimus historicus Titus Livius, optimus antiquarius Marcus Varro, optimus, aut optimo proximus orator Marcus Ciecro; principes certe, ex omni memoria, in sua quique facultate. Postremo, quantum ad Socratis accusationem, id dico tantum; recordemur temporum, quibus intentata est; nimirum sub triginta tyrannis, mortalium omnium crudelissimis, sceleratissimis, imperioque indignissimis: qui, rerum et temporum orbis postquam circumactus esset, Socrates ille (flagitiosus scilicet) heroïbus annumeratus est, et memoria ejus hominibus tam divinis, quam humanis, honoribus cumulata: quin disputationes ejus, tanquam corruptrices morum prius habitæ, pro præsentissimis mentis morumque antidotis ab omni posteritate celebrabantur. Atque hæc sufficiant ad respondendum politicis, qui superciliosa severitate, aut fneata gravitate, ausi sunt literas incessere contumeliis; quæ tamen confutatio impræsentiarum, nisi quod neseiamus an ad posteros permanaturi sint labores nostri, minus necessaria videatur; cum aspectus et favor duorum literatissimorum principum, Elizabethæ reginæ et Majestatis tuæ, tanquam Castoris et Pollucis, lucidorum siderum, tantum apud nos in Britannia literis amorem reverentiamque conciliaverint.

Nunc ad tertium vituperationum genus pervenimus, quod a literatis ipsis in literas redundat, altiusque cæteris solet hærere: cæ vel a fortuna, vel a moribus, vel a studiis ipsorum originem ducunt: quarum prima extra potestatem ipsorum est, secunda extra rem, ut tertia sola proprie in disquisitionem venire videatur. Quia tamen non tam de vero rerum pondere, quam de vulgi æstimatione, sermo instituendus est, haud abs re fuerit, etiam de alteris duabus pauca quædam innuere.

Quapropter dignitatis imminutiones, et quasi dehonestamenta, quæ a literatorum fortuna literis imponuntur, sumuntur aut a paupertate et inopia ipsorum, aut a vitæ genere obscuro et umbratili, aut ab occupationum, in quibus versantur, subjecto non admodum nobili.

Quantum ad paupertatem pertinet, quodque frequenter usuveniat, ut literati inopes sint, et tenui plerunque origine, neque tam propere ditescant, ac alii, qui quæstui solum inhiant: consultum foret, hunc locum de laude paupertatis, fratribus mendicantibus (pace eorum dixerim) exornandum tradere; quibus Machiavellus non parum tribuebat, cum diceret: "jamludum actum esse de regno sacerdotum, nisi reverentia erga fratres ac monachos, episcoporum luxum et excessum compensasset:" pariter dicat quis, felicitatem et magnificentiam principum et nobilium, jam olim recidere potuisse in barbaricm et sordes, nisi deberent literatis istis pauperibus civilis vitæ culturam et decus. Sed missis his laudum aucupiis, notatu dignum est, quam særa atque veneranda res, per aliquot apud Romanos secula, paupertas ipsa habita fuerit; quæ tamen respublica nihil trahebat ex paradoxis. Sic enim præfatur T. Livius: "Aut me amor negotii suscepti fallit, aut nulla unquam respublica nec major, nec sanctior, nec bonis exemplis ditior fuit, nec in quam tam sera avaritia luxuriaque immigraverint, nec ubi tantus ac tamdiu paupertati ac parsimoniæ honos fuerit." Quin etiam, postquam Roma jam degenerasset, legimus, eum Cæsar dictator collapsam rempubliceam instauraturum se profiteretur, quendam ex amicis ejus promsisse sententiam, nihil tam expeditum esse ad id, quod ageret, quam si divitiarum honos quoquo modo tolleretur. "Verum," inquit, "hæc, et omnia mala pariter cum honore pecuniæ desinent, si neque

magistratus, neque alia vulgo cupienda, venalia erunt." Denique quemadmodum vere dictum est, " ruborem esse colorem virtutis," licet quandoque oriatur ex culpa; ita recte statuas, paupertatem esse virtutis fortunam, quamvis interdum a luxu et incuria accersatur. Salomonis certe hæc est sententia, " Qui festinat ad divitias, non erit insons :" et præceptum, ' Veritatem eme, et noli vendere ; similiter scientiam, et prudentiam ;" quasi æquum judicet, opes impendendas ut doctrina paretur; non doctrinam eo vertendam ut opes congerantur.

Quid attinet dicere de vita illa privata et obscura, quam literatis objiciunt? Adeo tritum thema est, atque ab omnibus jactatum, otium et secessum (modo absint desidia et luxus) præponere vitæ forensi et occupatæ, propter securitatem, libertatem, dulcedinem, dignitatem, aut saltem ab indignitatibus immunitatem, ut nemo tractet hunc locum, quin bene tractet; ita humanis conceptibus in experiendo, et consensibus in approbando consonat. Hoc tantum adjiciam, eruditos, latentes in rebuspublicis, et sub oculis hominum minime degentes, similes esse imaginibus Cassii et Bruti, de quibus, in elatione Juniæ non gestatis, cum aliæ plurimæ ducerentur, Tacitus; " Eo ipso," inquit, " præfulgebant, quod non visebantur."

De occupationum, quæ literatis committuntur, vilitate, illud occurrit, quod demandetur iisdem puerorum ac juniorum institutio, cujus ætatis contemptus in magistros ipsos redundat. Cæterum, quam injusta sit hæc obtrectatio, si non ex vulgi opinione, sed ex sano judicio res perpendatur, inde licet æstimare, quod diligentiores sint omnes in imbuenda testa recenti, quam veteri; magisque soliciti sint, qualem admoveant terram tencræ plantæ, quam adultæ: unde liquet, præcipuam curam circa rerum et corporum initia versari. Rabbinis, si placet, porrige aurem: " Juvenes vestri visiones videbunt, et senes somniabunt somnia." Ex hoc textu colligunt, juventutem esse ætatem digniorem; quanto nimirum revelatio accedat clarior per visiones, quam per somnia. Illud vero notatu omnino dignum, quod licet pædagogi, velut simiæ tyrannidis, scenæ sint ludibria, et temporum incuria in delectu ipsorum veluti obdormierit, vetus tamen querela sit, inde usque ab optimis et prudentissimis seculis deducta, respublicas circa leges quidem nimium satagere, circa educationem indiligentes esse. Quæ nobilissima pars priscæ disciplinæ revocata est aliquatenus, quasi postliminio, in Jesuitarum collegiis; quorum cum intueor industriam solertiamque, tam in doctrina excolenda, quam in moribus informandis, illud occurrit Agesilai de Pharnabazo, " Talis cum sis, utinam noster esses." Atque haetenus de opprobriis e literatorum fortuna et conditione desumptis.

Quod ad literatorum mores, res est ista potius ad personas, quam ad studia, spectans. Repereruntur proculdubio inter eos, quemadmodum in omnibus vitæ ordinibus et generibus, tam mali, quam boni; neque propterea non verum est (quod asseritur) " abire studia in mores;" atque literas, nisi incidant in ingenia admodum depravata, corrigere prorsus naturam, et mutare in melius.

Veruntamen diligenter mihi atque ingenue rem æstimanti, nullum occurrit dedecus literis, ex literatorum moribus, quatenus sunt literati, adhærens: nisi forte hoc vitio vertatur (cujus Demosthenes, Cicero, Cato secundus, Seneca, plurcsque alii insimulantur) quod cum plerunque tempora, de quibus legunt, illis in quibus vivunt, et quæ præcipiuntur, illis quæ aguntur, meliora sint; ultra quam par est contendant morum corruptelas ad præceptorum et dogmatum honestatem retrahere, et priscæ severitatis mores temporibus dissolutis impuncre: de quo tamen abunde e propriis fontibus admoneri possunt. Solon enim interrogatus, an optimas civibus suis dedisset leges? " Optimas," inquit, " ex illis, quas ipsi voluissent accipere." Ita Plato, videns corruptiores suorum civium mores, quam ut ipse ferre posset, ab omni publico munere abstinuit, dicens: " Sic cum patria agendum esse, ut cum parentibus; hoc est, suasu, non violentia; obtestando, non contestando." Atque hoc ipsum cavet ille, qui a consiliis Cæsari: " Non," inquit, " ad vetera instituta revocamus, quæ jampridem corruptis moribus ludibrio sunt." Cicero etiam hujus erroris arguit Catonem secundum, Attico suo scribens; " Cato optime sentit, sed nocet interdum reipublicæ; loquitur enim tanquam in republica Platonis, non tanquam in fæce Romuli." Idem Cicero molli interpretatione excusat philosophorum dicta et decreta duriora: " Isti," inquit, " ipsi præceptores et magistri videntur fines officiorum paulo longius, quam natura vellet, protulisse, ut cum ad ultimum animo contendissemus, ibi tamen, ubi oportet, consisteremus." Ipsemet tamen potuit dicere, " Monitis sum minor ipse meis :" quippe qui in eundem lapidem ipse, licet non tam graviter, impegerit.

Aliud, quod eruditis non immerito fortasse objicitur vitium, hujusmodi est; quod honori aut emolumento patriarum suarum, aut dominorum, proprias fortunas aut præsidia postposuerint. Sic enim Demosthenes Atheniensibus suis, " Mea," inquit, " consilia, si recte attendatis, non sunt ejus generis, per quæ ego inter vos magnus, vos inter Græcos despectui sitis; sed talia, ut mihi sæpenumero ea haud tutum sit dare, vobis autem semper utile ampleeti." Haud aliter Seneca, postquam quinquennium illud Neronis æternæ eruditorum magistrorum consecrasset gloriæ, dominum suum, omnibus jam flagitiis inquinatissimum, libere atque fidenter monere non destitit, magno suo periculo, ac postremo præcipitio. Neque aliter potest se habere res: siquidem humanam mentem doctrina imbuit vero sensu frægilitatis suæ, instabilitatis fortunæ, dignitatis animæ et muneris sui; quarum rerum memores, nullo modo sibi persuadere possunt, fortunæ propriæ amplitudinem, tanquam præcipuum sibi bonorum finem statui posse. Quare sic vivunt, tanquam rationem reddituri Deo, et dominis post Deum, sive regibus, sive rebuspublicis, hac formula, " Ecce tibi lucrifeci;" non autem illa, " Ecce mihi lucrifeci." At politicorum turba, quorum mentes in doctrina officiorum, et in contemplatione boni universalis non sunt institutæ, et confirmatæ, omnia ad se referunt; gerentes se pro centro mundi, ac si omnes lineæ in se suisque fortunis debeant concurrere; de reipublicæ navi, licet tempestatibus jactata, nentiquam soliciti, modo ipsis in

scapha rerum suarum receptus detur et effugium. At contra, qui officiorum pondera, et philautiæ limites didicerunt, mnnia sua stationesque, licet cum pericolo, tuentur. Quod si forte incolumes permaneant in seditionibus, et rerum mutationibus, non id artibus aut versatili ingenio, sed reverentiæ quam probitas etiam ab bostibus extorquet, tribuendum. Cæterum, quod attinet ad fidei constantiam, et officiorum religionem, quas certe animis hominum inserit eruditio, utcunque eæ quandoque a fortuna mulctentur, aut ex malesanis politicorum principiis condemnentur, tamen palam scilicet apud omnes laudem referent, ut, in hac re, longa defensione non sit opus.

Aliud vitium literatis familiare, quod facilius excusari potest, quam negari: illud nimirum, quod non facile se applicent, et accommodent, erga personas, quibuscum negotiantur, aut vivunt. Qui defectus e duabus oritur causis. Prima est animi ipsius magnitudo, propter quam ægre se demittere possunt ad observantiam unius alicujus hominis. Amantis verba sunt, non sapientis: "Satis magnum alter alteri theatrum sumus." Neque tamen inficias ibo, illum, qui aciem animi, instar oculi, non possit æque contrahere, ac dilatare, insigni facultate ad res gerendas esse orbatum. Secunda vero causa est probitas morum et simplicitas; quæ tamen delectum judicii, non defectum, in illis arguit. Veri enim et legitimi observantiæ erga aliquam personam limites non ultra-porrigunt se, quam ita nosse illius mores, ut absque offensione cum eo versari, eumque consilio, si opus sit, juvare, nobisque interim ipsis in omnibus cavere possimus: verum alienos affectus rimari, eo fine, ut illum inflectas, verses, et ad libitum circumagas, hominis est parum candidi, sed potius astuti et bifidi; id quod in amicitia vitiosum fuerit, erga principes etiam inofficiosum. Mos enim orientis, quo nefas habetur oculos in reges defigere, ritu quidem barbarus est, sed significatione bonus: neque enim subditos decet, corda regum suorum, quæ sacræ Scripturæ inscrutabilia docent, curiosius rimari.

Superest etiamnum aliud vitium (quocum hanc partem concludam) literatis sæpius imputatum, videlicet quod in rebus exiguis et externis, (vultu, gestu, incessu, sermonibus quotidianis, et hujusmodi,) deficiant in observando decoro: unde homines imperiti, ex istis minutis leviculisque erroribus, quanti sint in rebus majoribus tractandis conjecturam capiunt. Verum fallit eos plerunque hujusmodi judicium; imo sciant, responsum sibi esse a Themistocle: qui cum rogatus esset, ut fidibus caneret, arroganter satis ipse de se, sed ad præsens institutum perquam apposite respondit: "Se quidem fidium rudem esse, sed quo pacto oppidum parvum in civitatem magnam evadere posset, satis nosse." Et sunt proculdubio multi politicarum artium apprime gnari, quibus tamen in communi vita et quotidianis reculis nihil imperitius. Quin etiam hujusmodi sugillatores amandandi sunt ad Platonis elogium de præceptore suo Socrate, quem haud absimilem dixit pharmacopolarum pyxidibus, quæ exterius inducebantur simiis, ululis, satyrisque, intus vero pretiosos liquores, et nobilia medicamenta recondita habebant: fatendo scilicet, quod ad volgi captum, et famam popularem, præ se ferret nunnulla levia, atque etiam deformia, cum tamen animi interiora summis tam facultatibus, quam virtutibus essent repleta. Atque de moribus literatorum hæc hactenus.

Interim monere placet, nos nihil minus agere, quam ut patrocinemur quibusdam professorum institutis abjectis et sordidis, quibus et se ipsos, et literas dehonestarunt: quales erant apud Romanos, seculis posterioribus, philosophi quidam in familiis divitum, mensarumque eorum asseclæ, quos haud absurde dicas barbatos parasitos. Cujus generis quendam lepide describit Lucianus, quem matrona nobilis catulum suum Melitæum in rheda gestare voluit: quod cum ille officiose, sed indecenter faceret, pusio subsannans: "Vereor," inquit, "ne philosophus noster e Stoico fiat Cynicus." Ante omnia vero, nihil tam offecit literarum dignitati, quam erassa et turpis adulatio, ad quam multi, neque hi indocti, et calamos et ingenia submisere, "Hecubam in Helenam, Faustinam in Lucretiam" (ut ait Dn-Bartas) transformantes. Neque vero nimis lando morem illum receptum libros patronis nuncupandi, cum libri, præsertim qui hoc nomine dignandi, in veritatis tantum et rationis clientelam se dare debeant. Melius veteres, qui non aliis, quam amicis atque æqualibus, scripta sua dicare solebant, aut etiam nomina ejusmodi amicorum tractatibus suis imponere: quod si forte regibus, aut magnatibus opus nuncuparent, tum demum hoc factum est, cum argumentum libri personæ tali conveniret. Hæc autem, et similia reprehensionem potius merentur, quam defensionem.

Neque hoc dico, quasi literatos culpem, si ad beatos et potentes viros quandoque se applicent. Recte enim Diogenes cuidam cum irrisione roganti: "Qui fieret, quod philosophi divites sectarentur, non divites philosophos?" respondit, non sine morsu, "Hoc ideo fieri, quod philosophi, quibus rebus indigeant, probe intelligant; divites non item." Huic affine est illud Aristippi, cui, nescio quid petenti, cum non attenderet Dionysius, ille adorantis more abjecit se ad pedes ejus; qui tum demum auscultans petitioni annuit: sed paulo post, quidam dignitatis philosophiæ assertor increpuit Aristippum, quod demittendo se ad pedes tyranni pro tantilla re philosophiam ipsam contumelia affecisset: cui ille, "suam id culpam non fuisse," respondit, "sed Dionysii, qui aures gestaret in pedibus." Quin prudens ille, non pusillanimis habitus est, qui in disputatione quadam cum Hadriano Cæsare vinci se passus est; excusans factum, "Quod æquum esset ei cedere, qui triginta imperaret legionibus." Atque propterea non sunt damnandi viri docti, ubi, cum res postulat, aliquid de gravitate sua remittant, sive imperante necessitate, sive impetrante occasione; quod quamvis humile videatur, atque servile primo intuitu, tamen verius rem æstimanti, censebuntur non personæ, sed tempori ipsi servire.

Pergamus nunc ad errores, atque inania, quæ in studiis ipsis virorum doctorum interveniunt, iisque se immiscent; id quod præcipue et proprie spectat ad præsens argumentum. Qua in re non est insti-

tuti nostri erroribus ipsis patrocinari, sed per eorum censuram et secretionem excutere quod sanum et solidum est, atque a calumnia vindicare. Videmus enim, in more, præsertim apud invidos, esse, propter ea, quæ depravata sunt, etiam ea, quæ impolluta et in statu suo manserunt, sugillare; quemadmodum ethnici in primitiva ecclesia Christianos hæreticorum vitiis aspergere solebant. Neque tamen consilium est mihi, examen aliquod accuratius instituere de erroribus et impedimentis literarum, quæ interiora et a captu vulgi remotiora; sed de illis tantum verba facere, quæ cadunt sub communi et populari observatione et nota, aut saltem ab ea non longe recedunt.

Quare tria præcipue deprehendo vana et inania in literis, quæ ansas præcipue præbuerunt ad obtrectandum. Eas enim res pro vanis ducimus, quæ aut falsæ sunt, aut frivolæ; in quibus scilicet aut veritas deficit, aut usus: illos etiam homines vanos et leves existimamus, qui aut ad falsa creduli, aut in rebus exigui usus curiosi. Curiositas autem, aut in rebus ipsis versatur, aut in verbis; quando nimirum, aut in rebus inanibus opera insumitur, aut circa verborum delicias nimium insudatur. Quocirca, non certæ magis experientiæ, quam rectæ etiam rationi, consonum videtur, ut tres ponantur doctrinarum intemperies. Prima est doctrina phantastica, secunda doctrina litigiosa, tertia doctrina fucata et mollis: vel sic; vanæ imaginationes, vanæ altercationes, vanæ affectationes. Ac quidem ordiar ab ultima.

Intemperies ista, in luxurie quadam orationis sita (licet olim per vices in pretio habita fuerit) circa Lutheri tempora miris modis invaluit. In causa præcipue fuit, quod fervor et efficacia concionum tunc temporis, ad populum demulcendum et alliciendum maxime vigebat: illa autem populare genus orationis poscebant. Accedebat odium et contemptus, illis ipsis temporibus, ortus erga scholasticos, qui stylo et scribendi genere utebantur valde diverso, verba licenter admodum cudentes nova et horrida, de orationis ornatu et elegantia parum solliciti, dummodo circuitionem evitarent, et sensus ac conceptus suos ante exprimerent: atque hinc factum est, ut paulo postea, major apud plurimos cœperit haberi verborum cura, quam rerum; plerisque magis comptam phrasim, teretem periodum, clausularum rhythmos, troporum stellulas; quam pondus rerum, rationum nervos, inventionis acumen, aut judicii limam affectantibus. Tum demum floruit Osorii Lusitani episcopi luxurians et diluta oratio. Tunc Sturmius in Ciceronem oratorem et Hermogenem rhetorem infinitam et anxiam operam consumpsit. Tunc Carrus et Aschamus apud nos, prælectionibus et scriptis suis Ciceronem et Demosthenem usque ad cœlum evehentes, juvenes ad politum hoc et florens doctrinæ genus invitarunt. Tunc Erasmus arripuit ansam introducendi ridiculam illam echo, "Decem annos consumpsi in legendo Cicerone:" cui echo respondit, Ὄνε, asine. Scholasticorum vero doctrina despectui prorsus haberi cœpit, tanquam aspera et barbara: denique, ut semel dicam, præcipua illorum temporum inclinatio, et studium, potius ad copiam, quam ad pondus, deflexit.

Hic itaque cernere est primam literarum intemperiem, quum, ut diximus, verbis studetur, non rebus: cujus, etsi e citimis tantum temporibus protulerim exempla, tamen secundum majus et minus, et olim placuerunt ejus generis ineptiæ, et deinceps placebunt. Jam vero fieri non potest, quin hoc ipsum multum faciat ad doctrinæ existimationem minuendam et elevandam, etiam apud vulgus imperitum, cum videant doctorum scripta, tanquam primam literam diplomatis, quæ quamvis variis calami ductibus et flosculis variegata sit, litera tamen est unica. Ac mihi sane videtur perapposita hujusce vanitatis adumbratio, et quasi emblema, Pygmalionis illa insania; quid enim aliud sunt verba, quam imagines rerum, ut nisi rationum vigore animata sint, odiamare illa idem sit, ac statuam deperire?

Neque tamen temere damnandum est, si quis philosophiæ obscura et aspera verborum splendore illustret, et expoliat: hujus enim rei magna adsunt exempla in Xenophonte, Cicerone, Seneca, Plutarcho, ipsoque etiam Platone: nec minor est utilitas. Quamvis enim diligentem veri cognitionem, atque acre studium philosophiæ res hæc nonnihil impediat, quoniam præpropere mentem consopit, atque ulterioris disquisitionis sitim et ardorem restinguit; si quis tamen doctrinam ad usus civiles adhibeat (sermocinandi videlicet, consulendi, suadendi, argumentandi, et similium) omnia, quæ capiat, præparata et adornata in hujusmodi auctoribus reperiet. Veruntamen hujusce rei excessus adeo juste contemnitur, ut quemadmodum Hercules, cum videret in templo statuam Adonidis (Veneris delicarum) indignabundus dixit, "Nil sacri es;" ita omnes Herculei literarum pugiles, id est, laboriosi atque constantes indagatores veritatis, hujusmodi delicias et lautitias, tanquam nil divini spirantes, facile spreverint.

Paulo sanius est aliud styli genus, neque tamen ipsum omnino vanitatis expers, quod copiæ illi, et luxuriæ orationis, tempore fere succedit. Illud totum in eo est, ut verba sint aculeata, sententiæ concisæ, oratio denique potius versa, quam fusa; quo fit, ut omnia per hujusmodi artificium, magis ingeniosa videantur, quam revera sint. Tale invenitur in Seneca effusius, in Tacito et Plinio secundo moderatius; atque nostri temporis auribus cœpit esse non ita pridem accommodatum. Verum hoc ipsum mediocribus ingeniis gratum esse solet, adeo ut dignitatem quandam literis conciliet; attamen a judiciis magis limatis merito fastiditur; et poni possit pro intemperie quadam doctrinæ, cum sit verborum etiam et eorum concinnitatis aucupium quoddam. Atque hæc de prima literarum intemperie dicta sunto.

Sequitur ea intemperies in rebus ipsis, quam posuimus mediam, et litigiosæ subtilitatis nomine designavimus: estque illa, de qua modo diximus, aliquanto deterior. Ut enim rerum dignitas verborum cultui præcellit, sic, e contrario, odiosior est vanitas in rebus, quam in verbis. Qua in re, increpatio illa Paulina, non magis ad suam ætatem referri, quam ad sequentia tempora deduci, potest; neque theologiam tantum, sed etiam omnes scientias respicere videtur. "Devita prophanas vocum novitates, et oppositiones falsi nominis scientiæ." His enim verbis duo signa indiciaque scientiæ suspectæ atque

ementitæ proponit. Primum est, vocum novitas et insolentia; alterum, rigor dogmatum, qui necessario oppositionem, et dein altercationes, quæstionesque inducit. Certe quemadmodum complura corpora naturalia, dum valent integra, corrumpuntur sæpius, et abeunt in vermes; eodem modo sana et solida rerum cognitio sæpenumero putrescit, et solvitur in subtiles, vanas, insalubres, et (si ita loqui licet) vermiculatas quæstiones; quæ motu quodam et vivacitate nonnulla præditæ videntur, sed putidæ sunt, et nullius usus. Hoc genus doctrinæ minus sanæ, et seipsam corrumpentis, invaluit præcipue apud multos ex scholasticis, qui summo otio abundantes, atque ingenio acres, lectione autem impares (quippe quorum mentes conclusæ essent in paucorum auctorum, præcipue Aristotelis dictatoris sui scriptis, non minus quam corpora ipsorum in cœnobiorum cellis) historiam vero et naturæ et temporis maxima ex parte ignorantes; ex non magno materiæ stamine, sed maxima spiritus, quasi radii, agitatione, operosissimas illas telas, quæ in libris eorum extant, confecerunt. Etenim, mens humana si agat in materiam, naturam rerum et opera Dei contemplando, pro modo materiæ operatur, atque ab eadem determinatur; sin ipsa in se vertatur (tanquam aranea texens telam) tum demum interminata est, et parit certe telas quasdam doctrinæ, tenuitate fili operisque admirabiles, sed quoad usum frivolas et inanes.

Hæc inutilis subtilitas sive curiositas duplex est: et spectatur aut in materia ipsa; qualis est inanis speculatio, sive controversia; cujus generis reperiuntur et in theologia et in philosophia haud paucæ: aut in modo et methodo tractandi; hæc apud scholasticos fere talis erat. Super unaquaque re proposita formabant objectiones; deinde objectionum illarum solutiones; quæ solutiones ut plurimum distinctiones tantum erant: cum tamen scientiarum omnium robur, instar fascis illius senis, non in singulis bacillis, sed in omnibus vinculo conjunctis consistat. Etenim symmetria scientiæ, singulis scilicet partibus se invicem sustinentibus, est, et esse debet, vera atque expedita ratio refellendi objectiones minorum gentium: contra, si singula axiomata, tanquam baculos fascis, seorsum extrahas, facile erit ea infirmare, et pro libito aut flectere aut frangere: ut, quod de Seneca dictum erat, "Verborum minutiis rerum frangit pondera;" vere de scholasticis usurpari possit, "quæstionum minutiis scientiarum frangunt robur." Num non in aula spatiosa consultius foret, unum accendere cereum, aut lychnuchum suspendere, variis luminibus instructum, quo omnia simul perlustrentur, quam in singulos angulos quaquaversus exiguam circumferre lucernam? Atqui non absimilis est eorum ratio, qui non tam veritatem perspicuis argumentis, auctoritatibus, comparationibus, exemplis illustrare nituntur; quam in hoc solum incumbunt, ut minutos quosque scrupulos eximant, et captiunculas expediant, et dubitationes solvant; hoc pacto quæstionem ex quæstione gignentes; quemadmodum fit in superiori similitudine, ut lucerna in unum aliquem locum delata, alios circumquaque destitnat et obscuret. Adeo ut Scyllæ fabula ad vivum exprimat hoc genus philosophiæ; cujus os et pectus virginem formosam præferebant, infra vero fuisse aiunt,

> Candida succinctam latrantibus inguina monstris.
> Virg. Ecl. vi. 75.

Sic generalia quædam apud scholasticos invenias, quæ pulchra sunt dictu, et non perperam inventa; ubi autem ventum fuerit ad distinctiones decisionesque, pro fœcundo utero, ad vitæ humanæ commoda, in portentosas et latrantes quæstiones desinunt. Itaque minime miram, si hoc genus doctrinæ, etiam apud vulgus hominum, contemptui obnoxium fuerit, qui fere solent veritatem propter controversias circa eam motas aspernari, atque existimare eos errare omnes, qui nunquam inter se conveniant; cumque videant doctos homines inter se digladiari de rebus nullius momenti, facile illud Dionysii Syracusani arripiunt, "Verba ista sunt senum otiosorum." Nihilominus certissimum est, si modo scholastici ad inexplebilem sitim veritatis, et continuam agitationem ingenii, varietatem et multiplicitatem lectionis et contemplationum adjunxissent, insignia profecto illi extitissent lumina, omnesque artes et scientias mirifice provexissent. Hactenus de secunda literarum intemperie.

Ad tertiam quod attinet, quæ ad falsitatem et mendacium spectat; una hæc omnium turpissima est, quippe quæ ipsam naturam animamque destruit scientiæ; quæ nihil aliud est, quam veritatis imago. Nam veritas essendi et veritas cognoscendi, idem sunt; nec plus a se invicem differunt, quam radius directus et reflexus. Hoc vitium itaque duplex, vel potius duplicatum est, impostura et credulitas; hæc decipitur, illa decipit. Quæ licet videantur discrepantia naturæ, alteraque a calliditate quadam, altera a simplicitate profecta, plerunque tamen coëunt. Ut enim in carmine habetur,

> "Percontatorem fugito; nam garrulus idem est:"

innuendo, qui curiosus est, eundem esse et futilem: pariter fit, ut qui facile credat, idem libenter decipiat. Quemadmodum quoque fieri videmus in fama et rumoribus; ut qui cito iisdem fidem habeat, pari facilitate eos auxerit: quod Tacitus prudenter innuit his verbis, "fingunt simul creduntque;" adeo finitimæ sunt, voluntas fallendi, et facilitas credendi.

Hæc credendi recipiendique omnia (licet levi auctoritate munita) facilitas, duorum generum est pro ratione subjectæ materiæ: aut enim creditur narrationi, sive facto, (ut loquuntur jurisconsulti,) aut dogmati. In priori genere videmus, quanto dignitatis detrimento hic error affecerit ex ecclesiasticis historiis nonnullas; quæ nimis faciles se præbuerunt, in prodendis transcribendisque miraculis, a martyribus, eremitis, anachoretis, et aliis sanctis viris, atque ab eorum reliquiis, sepulchris, sacellis, imaginibus, editis. Eodem modo in naturali historia videmus multa temere, ac parum cum delectu aut judicio recepta et descripta: ut liquet ex scriptis Plinii, Cardani, Alberti, et plurimorum ex Arabibus, quæ commentitiis et fabulosis narrationibus passim scatent, iisque non solum incertis, et neutiquam probatis, sed perspicue falsis et manifesto convictis; ingenti philosophiæ naturalis dedecore apud homines graves et sobrios. In quo sane eluescit Aristotelis

sapicatia, et iategritas, qui, eum diligentem scripserit atque accuratam historiam animalium, tam parce ficta aut fabulosa admiscuerit: quia potius auditiones admirandas, quas memoratu dignas judicavit, in unum commentariulum conjecit: prudenter perpendens perspicue vera (quæ tanquam basis experientiæ solida, philosophiæ et scientiis substerni possiat) haud temere esse cum rebus suspectæ fidei miscenda; et rursus etiam rara atque insolita, quæ plerisque incredibilia videntur, non omnino esse supprimenda, neque memoriæ posteriorum denegnada.

At illa altera credulitas, quæ non historiæ, aut narrationibus, sed artibus et opinionibus tribuitur, duplex est: aut cum artibus ipsis, aut cum auctoribus in arte nimium credimus. Artes ipsæ, quæ plus habeat ex phantasia et fide, quam ex ratione et demonstrationibus, sunt præcipue tres, astrologia, naturalis magia, et alchemia; quarum tamen fines non sunt ignobiles. Profitetur enim astrologia superiorum in inferiora influxum et dominantum recludere: magia sibi proponit naturalem philosophiam a varietate speculationum ad magnitudinem operum revocare: chemica in se suscipit partes rerum heterogeneas, quæ in corporibus naturalibus latent et implicantur, separare et extrahere; corporaque ipsa inquinata depurare, impedita liberare, immatura perficere. Sed viæ atque rationes, quæ ducere putantur ad hos fines, tam in theoria illarum artium quam in praxi, erroris et nugarum plenæ sunt. Neque adeo traditio ipsarum, ut plurimum, candida est, sed artificiis et latebris munita. Chemicæ tamen hoc certe debetur, quod vere comparari possit agricolæ apud Æsopum, qui, e vita exiturus, dixit filiis, "Se illis vim magnam auri in vinea, nec satis meminisse quo loco, defossam reliquisse:" qui eum vineam diligenter ligonibus ubique invertissent, aurum quidem repererunt nullum, sed tamen vindemiam insequentis anni, propter fossionem circa radices vitium, tulerunt longe uberrimam; sic strenui illi chemistarum labores et molimina circa aurum confidendum, haud pauca nobilibus inventis et experimentis, tum ad reserandam naturam, tum ad usus vitæ apprime idonea, quasi facem accenderunt.

Illa autem credulitas, quæ certos scientiarum auctores dictatoria quadam potestate munivit ut edicant, non senatoria ut consulant, ingens damnum scientiis intulit, tanquam præcipua causa, quæ tantopere illas afflixit, et depressit, ut, absque insigni aliquo augmento, exangues jacerent. Hinc nempe factum est, ut in artibus mechanicis primi inventores pauca excogitaverint, tempus reliqua supplerverit, et perfecerit; at in scientiis, primi auctores longissime penetraverint, tempus plurima detriverit, et corruperit. Sic videmus, tormentariam, nauticam, typographicam, sub initiis imperfectas, et propemodum informes fuisse, et exercentibus onerosas, temporis vero progressu expolitas et accommodas. At contra philosophiæ et scientiæ Aristotelis, Platonis, Democriti, Hippocratis, Euclidis, Archimedis, in ipsis illis auctoribus viguerint, tractu temporis degenerarunt potius, et non minimum splendoris amiserunt: cujus rei non est alia ratio, quam quod in artibus mechanicis ingenia multorum in unum coierint, in artibus et scientiis liberalibus ingenia multorum sub uno succubuerunt: quem tamen ipsum sæpenumero sequaces sui potius depravarunt quam illustrarunt. Ut enim aqua non ascendet altius, quam caput fontis, a quo promanat; ita doctrina ab Aristotele deducta, supra doctrinam Aristotelis nunquam assurget. Ideoque etsi non displiceat regula, oportet discentem credere; huic tamen conjungendum est, oportet jam edoctum judicio suo uti. Discipuli enim debent magistris temporariam solum fidem, judiciique suspensionem, donec penitus imbiberint artes; non autem plenam libertatis ejurationem, perpetuamque ingenii servitutem. Quare, ut absolvam hanc partem, hoc tantum adjiciam; magnis auctoribus suus sic constet honos, ut auctori auctorum, et veritatis parenti, tempori, non derogetur.

Explicavimus tandem tres doctrinæ intemperies, sive morbos; præter quos nonnulli sunt, non tam morbi confirmati, quam vitiosi humores: qui tamen non adeo occulti sunt, aut latentes, quin in multorum sensum et reprehensionem incurrant, ideoque neutiquam prætermittendi.

Horum primus est immodicum studium duorum extremorum, antiquitatis et novitatis. Qua in re temporis filiæ male patrissant: ut enim tempus prolem devorat, sic hæc se invicem; dum antiquitas novis invidet augmentis, et novitas non sit contenta recentia adjicere, nisi vetera prorsus eliminet, et rejiciat. Certe consilium Prophetæ vera in hac re norma est: "State super vias antiquas, et videte quænam sit via recta, et bona, et ambulate in ea." Antiquitas eam meretur reverentiam, ut homines aliquandiu gradum sistere, et supra eam stare debeant, atque undequaque circumspicere, quæ sit via optima: quum autem de via bona constiterit, tunc demum non restitandum, sed alacriter progrediendum. Sane, ut verum dicamus, "Antiquitas seculi, juventus mundi." Nostra profecto sunt antiqua tempora, eum mundus jam senuerit; non ea, quæ computantur ordine retrogrado, initium sumendo a seculo nostro.

Alius error, e priori oriundus, est suspicio quædam, et diffidentia, quæ nihil nunc posse invenire autumat, quo munus tam din carere potuit: ac si illa objectio convenire ergo tempus, qua Lucianus impetit Jovem, cæterosque ethnicorum deos: "Miratur enim, cur tot olim genuerint liberos, nullos autem suo seculo? Interrogatque jocans, ecquid septuagenarii jam essent, aut lege Papia, contra senum nuptias lata, constricti?" Sic videatur homines subvereri, ne tempus effœtum jam factum sit, et ad generationem ineptum. Quin potius levitas hominum atque inconstantia, hinc optime perspici potest, qui, donec res aliqua perfecta sit, eam mirantur fieri posse; postquam facta semel est, iterum mirantur eam jam pridem factam non fuisse. Ita Alexandri expeditio in Asiam habita est initio pro vasto et arduo admodum negotio; quam tamen postea placuit Livio in tantum elevare, ut diceret de Alexandro, "Nil aliud, quam bene ausus est vana contemnere." Idem Columbo evenit circa occidentalem navigationem. Sed in rebus intellectualibus hoc fit multo frequentius; uti videre est in plerisque propositionibus apud Euclidem, quæ antequam demonstrentur, mirae videntur, et quibus quis non facile assenserit; post

demonstrationem autem factam arripit eas mens per retractionem quandam (ut loquuntur jurisconsulti) tanquam ante perspectas et cognitas.

Alius error, superiori affinis, est eorum, qui omnium sectarum, atque hæresium veterum, postquam excussæ fuissent, et ventilatæ, optimam semper obtinuisse, posthabitis aliis, existimant. Itaque putant, si quis de integro instituerat inquisitionem et examen, non posset non incidere in aliquas ex rejectis opinionibus, et post rejectionem amissis, et obliteratis: quasi vero multitudo, aut etiam sapientes, multitudinis deliniendæ gratia, non illud sæpe probarint, quod populare magis atque leve sit, quam quod solidum, atque alte radices agens. Tempus siquidem simile est fluvio, qui levia atque inflata ad nos devehit, solida autem, et pondus habentia submergit.

Alius error, a reliquis diversus, est præmatura, atque proterva reductio doctrinarum in artes et methodos; quod cum fit, plerunque scientia aut parum, aut nihil proficit. Nimirum ut ephebi, postquam membra et lineamenta corporis ipsorum perfecte efformata sunt, vix amplius crescunt; sic scientia, quamdiu in aphorismos, et observationes spargitur, crescere potest, et exurgere; sed methodis semel circumscripta et conclusa, expoliri forsan et illustrari, aut ad usus humanos edolari potest, non autem porro mole augeri.

Alius error succedens ipsi, quem postremo notavimus, est quod post singulas scientias et artes suas in classes distributas, mox a plerisque universali rerum cognitioni et philosophiæ primæ renunciatur; quod quidem profectui doctrinarum inimicissimum est. Prospectationes fiunt e turribus, aut locis præaltis; et impossibile est, ut quis exploret remotiores interioresque scientiæ alicujus partes, si stet super plano ejusdem scientiæ, neque altioris scientiæ veluti speculam conscendat.

Alius error fluit ex nimia reverentia et quasi adoratione intellectus humani; unde homines abduxere se a contemplatione naturæ, atque ab experientia, in propriis meditationibus, et ingenii commentis, susque deque volutantes. Cæterum præclaros hos opinatores, et (si ita loqui licet) intellectualistas, qui tamen pro maxime sublimibus, et divinis philosophis haberi solent, recte Heraclitus perstrinxit: "Homines," inquit, "quærunt veritatem in microcosmis suis, non in mundo majori." Respuunt enim quasi abecedarium naturæ, primumque in operibus divinis tirocinium: quod si non facerent, potuissent fortasse gradatim et sensim, post literas simplices, et deinceps syllabas, ad textum et volumen ipsum creaturarum expedite legendum ascendere. At illi contra, jugi mentis agitatione, urgent, et tanquam invocant suos genios, ut vaticinentur eis, edantque oracula, quibus merito, et suaviter decipiuntur.

Alius error huic posteriori finitimus est, quod homines sæpius imbuant, et inficiant meditationes et doctrinas suas opinionibus quibusdam et conceptibus propriis, quos potissimum in admiratione habent; aut artibus, quibus maxime addicti et consecrati sunt; cætera omnia illis deliciis inficientes, et quasi intingentes, licet fuco admodum fallaci. Sic sua philosophia immiscuit Plato theologiam, Aristoteles logicam, secunda schola Platonis (Proclus scilicet et reliqui) mathematicas. Istas enim artes solebant illi tanquam filiolos suos primogenitos suaviari. At chemici e paucis experimentis ad foculum, et fornacem, novam philosophiam exuderunt. Et Gilbertus popularis noster philosophiam aliam ex magnete elicuit. Sic Cicero, cum varias opiniones de natura animæ recensens, tandem in musicum incidisset, qui animam esse harmoniam statuebat, facete dixit, "hic ab arte sua non recessit." Sed de hoc genus erroribus apposite et prudenter ait Aristoteles, "Qui respiciunt ad pauca, de facili pronunciant."

Alius error est impatientia dubitandi, et cæca festinatio decernendi, absque debita et adulta suspensione judicii. Nam bivium contemplationis non est dissimile bivio actionis, a veteribus sæpius memorato: cujus altera via initio plana et facilis erat, fine autem impervia; altera ingredienti aspera erat et confragosa, ubi paulo processeris, expedita et æquabilis. Haud secus in contemplationibus, si quis a certis ordiatur, in dubia desinet: sin a dubiis incipiat, eaque aliquandiu patienter toleret, in certis exitum reperiet.

Similis error se ostendit in modo tradendi doctrinam, qui, ut plurimum, est imperiosus et magistralis, non ingenuus et liberalis; ita demum compositus, ut potius fidem imperet, quam examini subjiciatur. Non negaverim in summariis libellis, ad praxin destinatis, hanc formulam scribendi retineri posse; verum in justis tractatibus de scientiis utrumque extremum vitandum censeo, tam Velleii Epicurei, nil tam metuentis, quam ne dubitare de re aliqua videretur; quam Socratis, et Academiæ, omnia in dubio relinquentium. Candori potius studendum, resque majore aut minore contentione tradendæ, prout rationum momentis parcius aut plenius sint probatæ.

Alii errores sunt in scopis, quos homines præfigunt sibi, et in quos conatus suos et labores dirigunt. Cum enim diligentiores literarum coryphæi ad id collimare debeant præcipue, ut arti, quam profitentur, aliquid præclarum adjiciant: hi contra in secundis tantummodo consistere sat habent; vel subtilis interpretis, vel antagonistæ vehementis et nervosi, vel methodici abbreviatoris nomen ambientes; unde reditus, et vectigalia scientiarum augeri possunt, patrimonium et fundus minime.

Omnium autem gravissimus error in deviatione ab ultimo doctrinarum fine consistit. Appetunt enim homines scientiam, alii ex insita curiositate et irrequieta; alii animi causa et delectationis; alii existimationis gratia; alii contentionis ergo, atque ut in disserendo superiores sint; plerique propter lucrum et victum; paucissimi, ut donum rationis divinitus datum in usus humani generis impendant. Plane, quasi in doctrina quæreretur lectulus, in quo tumultuans ingenium et æstuans requiesceret; aut xystus sive porticus, in quo animus deambularet liber et vagus; aut turris alta et edita, de qua mens ambitiosa et superba despectaret; aut arx et propugnaculum ad contentiones et prælia; aut officina ad quæstum et mercatum: et non potius locuples armarium, et gazophylacium, ad Opificis rerum omnium gloriam, et vitæ humanæ subsidium. Hoc enim illud, est quod revera doctrinam atque artes condecoraret, et attolleret, si contemplatio et actio arctiore

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quam adhuc vinculo copularentur. Quæ certe conjunctio talis foret, qualis est supremorum duorum planctarum syzygia, cum Saturnus, quietis et contemplationis dux, cum Jove, duce societatis agendique, conspirat. Quanquam cum de praxi atque actione loquor, nullo modo ad doctrinam professoriam et lucrosam innuo. Neque enim me fugit, quantopere hoc ipsum progressionem doctrinæ et amplificationem moretur; perinde quidem ut aurcum malum ante oculos Atalantæ projectum, quod ut tollat, dum flectit se, cursus intcrea impeditur:

"Declinat cursus, aurumque volubile tollit."

Neque rursus mihi in animo est, quod de Socrate dictum erat, "Philosophiam devocare de cœlo, ut tantummodo versaretur in terris:" hoc est, physicam seponi, ut moralis philosophia, et politica celebraretur sola; sed quemadmodum cœlum et terra simul conspirant et consentiunt, ad hominum tuendam vitam atque juvandam; ita sane hic finis esse debet utriusque philosophiæ, ut, rejectis vanis speculationibus, et quicquid inane ac sterile est, conservetur quicquid solidum est ac fructuosum; ut hoc pacto, scientia non sit tanquam scortum ad voluptatem, aut tanquam ancilla ad quæstum; sed tanquam sponsa ad generationem, fructum, atque solatium honestum.

Jam explicasse videor, et quasi dissectione quadam aperuisse, vitiosos illos humores, aut saltem eorum præcipuos, qui non solum obstitere profectui literarum, verum etiam culpandis iisdem ansam dedere. Quod quidem si nimis ad vivum fecerim, meminisse oportet, "Fidelia vulnera amantis, sed dolosa oscula malignantis." Utcunque hoc certe mihi videor assecutus, ut merear fidem in sequenti præconio, cum in superiori censura tam libere egerim. Neque tamen in animo est mihi panegyricum literarum scribere, aut hymnum Musis præcinere, licet forsitan diu jam sit, ex quo sacra earum ritc celebrata sint: sed consilium est, absque pigmentis et hyperbolis, verum doctrinæ contra alias res pondus excipere, et perpendere, verumque ejus valorem et pretium, ex testimoniis divinis atque humanis, exquirere.

Primo igitur quæramus dignitatem scientiæ in archetypo sive exemplari: id est, in attributis atque actis Dei, quatenus revelantur homini, et sobrie indagari possunt. Qua in re non competit appellatio doctrinæ, cum omnis doctrina sit scientia acquisita: nulla autem cognitio in Deo acquisita est, sed originalis. Itaque aliud quærendum est nomen, sapientia scilicet, ut sacræ Scripturæ eam indigitant.

Sic autem se res habet: in operibus creationis duplicem virtutis divinæ emanationem videmus, quarum una ad potentiam refertur, altera ad sapientiam: illa præcipue cernitur in crcanda mole materiæ, hæc in pulchritudine formæ disponenda. Hoc posito, notandum est nihil in creationis historia obstare, quin fuerit confusa illa cœli terræque massa et materia, unico temporis momento creata; cui tamen disponendæ digerendæque sex dies fuerunt attributi: adeo signanter Deus opera potentiæ, ac sapientiæ discriminavit. Cui accedit, quod de materiæ creatione memoriæ proditum non sit, dixisse Deum, "Fiat cœlum et terra," sicut de sequentibus operibus dictum est: sed nude atque actualiter, "Deus creavit cœlum et terram:" ita ut materia videatur tanquam manu facta; formæ vero introductio stylum habeat legis, aut decreti.

Pergamus a Deo ad Angelos, quorum natura dignatione est Deo proxima. Videmus in ordinibus Angelorum (quatenus fides adhibenda cœlesti illi hierarchiæ quæ Dionysii Areopagitæ nomine evulgatur) primum locum obtinere Seraphim, Angelos scilicet amoris; secundum Cherubim, Angelos illuminationis; tertium autem locum et sequentes, *Thronis, Principatibus*, cæterisque Angelis potentiæ et ministerii concedi; ut ex hoc ipso ordine ac distributione clarum sit, Angelos scientiæ et illuminationis Angelis imperii et potentiæ præponi.

A spiritibus et intelligentiis ad formas sensibiles et materiatas descendentes, legimus primam formarum creatarum fuisse lucem; quæ in naturalibus et corporeis scientiæ in spiritualibus atque incorporeis respondet.

Sic in distributione dierum, videmus diem, qua requievit Deus et contemplatus est opera sua, benedictam fuisse supra omnes dies, quibus crcata est et disposita fabrica universi.

Post creationem absolutam, legimus hominem collocari in paradiso, ut illic operaretur: quod quidem opus aliud esse non poterat, quam quale pertinet ad contemplandum: hoc est, cujus finis non ad necessitatem aliquam, sed ad delectationem et activitatem sine molestia, referri possit: cum enim tunc temporis nulla potuerit esse creaturæ reluctatio, nullus sudor vultus, necessario sequitur actiones humanas ad voluptatem et contemplationem, non ad laborem aut opus, comparatas fuisse. Rursus primæ hominis actiones, quas in paradiso exercuit, duas summarias scientiæ partes complexæ sunt: hæ erant inspectio creaturarum, et impositio nominum. Nam scientia illa, quæ lapsum introduxit (quod et ante monuimus) non erat naturalis scientia circa creaturas, sed moralis scientia de bono et malo; ex hac suppositione, quod Dei mandata, aut vetita, non essent principia boni et mali, sed quod alias haberent illa origines; quorum cognitionem affectavit homo, scilicet ut totaliter a Deo deficeret, et sibi ipsi suoque arbitrio prorsus innitcretur.

Veniamus ad ea, quæ statim post lapsum contigere. Videmus (ut innumera sunt sacrarum Scripturarum mysteria, salva semper veritate historica et literali) imaginem duarum vitarum, contemplativæ nimirum, et activæ, in personis Abelis et Caini, inque eorum institutis, et primitivis vivendi rationibus, delineatam: quorum alter pastor erat, (qui propter otium et quietem, liberumque cœli aspectum, typus est vitæ theoricæ,) alter agricola (laboribus scilicet fatigatus, et aspectu in terram defixus): ubi cernere est favorem, electionemque divinam, ad pastorem accessisse, non ad agricolam.

Sic ante diluvium, Sacri Fasti, inter paucissima, quæ de eo seculo memorantur, dignati sunt memoriæ prodere inventores musicæ, atque operum metallicorum. Sequenti seculo post diluvium gravissima pœna, qua Deus humanam superbiam ultus est, fuit confusio linguarum, qua doctrinæ liberum com-

mercium, et literarum ad invicem communicatio maxime interclusa est.

Descendamus ad Mosem legislatorem et primum Dei notarium, quem Scripturæ ornant hoc elogio; quod "gnarus et peritus esset omnis doctrinæ Ægyptiorum:" quæ quidem gens inter vetustissimas mundi scholas numeratur. Sic enim Plato inducit Ægyptium sacerdotem dicentem Soloni; "Vos Græci semper pueri estis, nullam vel scientiam antiquitatis vel antiquitatem scientiæ habentes." Perlustremus ceremonialem legem Mosis, reperiemusque, præter Christi præfigurationem, distinctionem populi Dei a gentibus, exercitium obedientiæ, aliosque ejusdem legis usus sacros: nonnullos doctissimorum Rabbinorum haud inutilem circa eam navasse operam, ut sedulo eruerent, quandoque naturalem, quandoque moralem sensum ceremoniarum et rituum. Exempli gratia, ubi de lepra dicitur, "Si effloruerit discurrens lepra, homo mundus erit, et non recludetur: sin caro viva in eo erit, immunditiæ condemnabitur, et ad sacerdotis arbitrium separabitur." Ex hac lege colligit unus eorum axioma in natura; "Putredinem pestilentiorem esse ante, quam post maturitatem." Alius morale documentum elicit, "Homines flagitiis undique coopertos, minus corrumpere publicos mores, quam mediocriter et ex parte tantum malos:" adeo ut ex hoc et similibus locis ejus legis, præter sensum theologicum, haud pauca ad philosophiam spectantia spargi videantur.

Si quis etiam eximium illum Jobi librum diligenter evolverit, plenum eum, et tanquam gravidum, naturalis philosophiæ mysteriis deprehendet: exempli gratia; circa cosmographiam et rotunditatem terræ; illo loco, "Qui extendit aquilonem super vacuum, et appendit terram super nihilum." Ubi pensilis terra, polus arcticus, et cœli convexitas in extimis, haud obscure insinuantur. Rursus circa astronomiam et asterismos, illis verbis, "Spiritus ejus ornavit cœlos, et obstetricante manu ejus eductus est coluber tortuosus." Et alio loco, "Nunquid conjungere valebis micantes stellas Pleiadas, aut gyrum Arcturi poteris dissipare?" Ubi immota configuratio stellarum fixarum, paribus intervallis semper inter se distantium, elegantissime describitur. Item alio loco, "Qui facit Arcturum, et Orionem, et Hyadas, et interiora austri." Ubi iterum innuit depressionem antarctici poli, eamque designat nomine "interiorum austri," quia australes stellæ nostro hemisphærio non cernuntur. Circa generationem animalium: "Annon sicut lac mulsisti me, et sicut caseum coagulasti me?" &c. Circa rem metallicam, "Habet argentum venarum suarum principia, et auro locus est in quo conflatur: ferrum de terra tollitur, et lapis solutus calore in æs vertitur." Et sequentia in eodem capite.

Pariter et in persona regis Salomonis videmus donum sapientiæ, tum in petitione ipsius, tum in concessione divina, omnibus terrenæ et temporalis felicitatis bonis prælatum. Virtute cujus doni et concessionis, Salomon egregie instructus, non solum scripsit insignes illas parabolas, sive aphorismos, de divina atque morali philosophia; verum etiam composuit naturalem historiam omnium vegetabilium, "a cedro super montem, usque ad muscum super murum" (quæ nihil est aliud, quam rudimentum plantæ, putredinis et herbæ medium) omniumque etiam, quæ respirant et moventur. Imo idem rex Salomon, quamvis excellucrit opibus, magnificentia ædificiorum, classe, famulitio, nominis celebritate, et reliquis quæ ad gloriam pertinent, nihil tamen, ex ista gloriæ segete, sibi ipsi decerpit aut assumit, præter deens inquirendi et inveniendi veritatem. Sic enim diserte ait; "Gloria Dei est celare verbum, et gloria regis investigare sermonem." Ac si Divina Majestas innoxio illo et benevolo puerorum ludo delectaretur, qui ideo se abscondant, ut inveniantur: quasique etiam nihil esset honorificentius regibus, quam Dei collusores esse in eodem ludo; præsertim cum tot ingeniis imperent, tantasque opes præsto habeant, quibus omnis secreti investigatio absolvi possit.

Nec vero aliter hæc dispensavit Deus, postquam Salvator noster in mundum venisset. Ille enim prius potentiam ostendit suam in profligandæ ignorantia, ubi cum doctoribus et sacerdotibus dissereret in templo, quam in subjuganda natura, tot et tantis editis miraculis. Adventus quoque Spiritus Sancti præcipue adumbratus atque expressus fuit in similitudine ac dono linguarum, quæ sunt duntaxat vehicula scientiæ.

Ita in seligendis illis instrumentis, quæ adhibuit Deus ad fidem disseminandam, initio homines evocavit plane indoctos et illiteratos, præterquam quod Spiritus Sancti afflatu instructi fuissent; quo evidentius virtutem suam immediatam et divinam declararet, omnemque humanam sapientiam deprimeret. Quamprimum autem consilium suum in hac parte perimpletum esset, mox in proxima successione temporum divinam veritatem suam, aliis doctrinis, velut pedissequis, comitatam, in mundum immisit. Itaque D. Pauli calamus (qui inter Apostolos solus literatus fuit) in Scripturis Novi Testamenti, præcipue a Deo adhibitus est.

Sic et novimus, complures ex antiquis Episcopis et Patribus egregie fuisse in omni ethnicorum eruditione versatos. Adeo ut edictum Juliani, quo cautum est, ne Christiani ad scholas et gymnasia mitterentur, perniciosior machina ad expugnandam fidem Christianam, quam cruentæ superiorum imperatorum persecutiones, habitum fuerit. Neque Gregorii primi, Episcopi Romani, (cætera viri egregii,) æmulatio et invidentia, qui ethnicorum auctorum et antiquitatum memoriam obliterare studebat, in bonam partem, etiam apud viros pios, accepta est. Quinimo sola Christiana Ecclesia, inter inundationes Scytharum a plagis septentrionalibus, et Saracenorum ab orientalibus, pretiosas gentilis eruditionis reliquias, jamjam funditus perituras, sinu et gremio suo conservavit. Nuper etiam intueri licet Jesuitas (qui partim studio proprio, partim ex æmulatione adversariorum, literis strenue incubuerunt) quantum subsidii, viriumque, Romanæ sedi reparandæ et stabiliendæ attulerint.

Quare ut absolvam hanc partem, duo sunt præcipua officia et ministeria, præter ornatum et illustrationem, quæ fidei religionique humaniores literæ persolvunt. Unum, quod efficacia sint incitamenta ad divinam gloriam exaltandam et celebrandam:

sicut enim Psalmi et aliæ Scripturæ crebro nos invitant ad contemplationem prædicationemque magnificorum et admirabilium operum Dei; ita, si tantum in eorum specie externa, sicut sensibus nostris se exhibent, hæreremus, eandem faceremus injuriam Majestati Divinæ, ne si de opulentia et copia nobilissimi gemmarii, ex iis, quæ pulam exponuntur in pergulo, judicaremus. Alterum, quod singulare remedium antidotumque exhibeat philosophia, contra infidelitatem et errores. Nam Salvator noster inquit, "Erratis, nescientes Scripturas et potentiam Dei." Ubi duos libros, ne in errores incidamus, proponit nobis evolvendos: primo volumen Scripturarum, quæ voluntatem Dei, dein, volumen creaturarum, quæ potentiam revelant: quorum posterior, veluti clavis est prioris, non solum intellectum nostrum aperiens ad genuinam Scripturarum mentem, ex generalibus regulis rationis et legibus sermonis expromendam; sed porro etiam præcipue fidem nostram reserans, ut in seriam ingrediamur omnipotentiæ divinæ meditationem, cujus characteres maxime insculpti ejus operibus et incisi sunt. Tantum de divinis testimoniis ac judiciis pro vera dignitate et pretio doctrinæ dictum sit.

Quantum ad humana testimonia et argumenta, tam latus aperitur campus, ut in tractatu hoc brevi et presso, delectum potius adhibere deceat, quam copiam. Primo itaque summus apud ethnicos honoris gradus fuit, divinam venerationem, cultumque consequi (quod quidem Christianis est tanquam fructus vetitus:) nunc vero loquimur sapientiæ de judiciis humanis. Itaque (ut ecpimus dicere) apud ethnicos, ille, quem Græci *Apotheosin*, Latini *Relationem inter divos* vocarunt, supremus honor fuit, qui homini ab homine tribui posset: præsertim ubi non ex decreto, aut edicto aliquo imperii (ut Cæsaribus apud Romanos) sed ex opinione hominum et fide interna, ultro deferretur: cujus honoris tam excelsi gradus quidam erat, et terminus medius: quippe supra humanos honores, heroici numerabantur et divini. In quorum distributione hunc ordinem tenuere veteres: rerumpublicarum conditores, legislatores, tyrannicidæ, patres patriæ, quique in rebus civilibus optime meruerunt, insigniti sunt titulo heroum tantum, aut semideorum: quales fuere Theseos, Minos, Romulus, cæterique. Ex altera parte, inventores et auctores novarum artium, quique vitam humanam novis commodis et accessionibus dotarunt, semper consecrati sunt inter deos ipsos majores; quod Cereri, Baccho, Mercurio, Apollini, et aliis contigit: quod certe jure, et sano enim judicio factum est. Nam priorum beneméritu intra unius ætatis, aut nationis limites, fere coërcentur; nec absimilia sunt imbribus tempestivis et benignis, qui quamvis frugiferi sint, atque optabiles, tamen pro illa tempestate tantum, qua decidunt, atque pro amplitudine tractus terræ, quam irrigant, utiles sunt. Posteriorum vero beneficia, ut ipsius solis et cœlestium munera, temporibus perpetua, locis infinita sunt. Illa rursus, cum contentione et perturbatione, ut plurimum, conjuncta sunt; hæc habent verum charaeterem divinæ præsentiæ, veniuntque in mira leni, absque tumultu aut strepitu.

Neque sane doctrinæ meritum in civilibus, et in reprimendis incommodis, quæ homo homini infert, multum cedit illi alteri, in sublevandis humanis necessitatibus, quæ ab ipsa natura imponuntur. Atque hoc genus meriti optime adumbratum fuit sub illa ficta narratione de theatro Orphei, ubi singulæ bestiæ mixtaque congregatæ sunt, quæ, appetituum suorum immemores, prædæ, ludi, pugnæ, amicæ, placideque una stetere, citharæ concentu, et suavitate captæ: cujus sonus ubi aut cessaret, aut majori sonitu obrueretur, omnes illico animantes ad ingenium redibant. Qua in fabula eleganter describuntur ingenia et mores hominum, qui variis et indomitis cupiditatibus agitantur, lucri, libidinis, vindictæ: qui tamen quamdiu aures præbent præceptis et suasionibus religionis, legum, magistrorum, in libris, sermonibus, et concionibus, eloquenter et suaviter modulantibus, tam diu pacem colunt et societatem; sin ista sileant, aut seditiones et tumultus obstrepant, omnia dissiliunt, et in anarchiam atque confusionem relabuntur.

Sed enim hoc clarius cernitur, cum reges ipsi, aut magnates, aut præfecti eruditione præditi sint. Ut ut enim suis addictus nimium partibus videatur, qui dixit, "tum demum respublicas fore felices, cum aut philosophi regnant, aut reges philosophantur:" hoc tamen experientia notum est, sub eruditis principibus et custodibus reipublicæ secula maxime felicia fuisse. Quamvis enim reges ipsi suos habeant errores et vitia, affectibus scilicet et pravis consuetudinibus, pro more cæterorum hominum, obnoxii; tamen doctrinarum si accedat lumen, anticipatæ quædam notiones religionis, prudentiæ, honestatis, retinent eos, et ab omni præcipiti, et immedicabili excessu, et errore refrænant; aurem semper vellentes, etiam cum consiliarii et domestici silent. Quin senatores ipsi et consiliarii, qui literis exculti sunt, solidioribus innituntur principiis, quam qui ab experientia tantum edocti sunt; illis ex longinquo prospicientibus pericula et mature propulsantibus, cum isti tantum ex propinquo et cominus sapiunt, nihil videntes, nisi quod imminet, et tunc demum agilitate ingenii sui, se in ipso periculorum articulo expedire et eripere posse confidentes.

Quæ felicitas temporum sub eruditis principibus (ut semper brevitati studeam, odhibens non nisi laetissima quæque exempla, et maxime illustria) præcipue cernitur eo in seculo, quod a morte Domitiani imperatoris, usque ad imperium Commodi defluxit: successionem sex principum eruditorum, aut certe eruditioni impense faventium, complectente; omniumque, si temporalia bona spectamus, quæ unquam vidit Roma, totius orbis tunc epitome, longe florentissimo. Id quod Domitiano, pridie ejus diei, quo interfectus est, in somnis præmonstratum erat. Quippe qui videre visus est, "Caput aureum sibi pone cervicem natum esse:" quod sane vaticinium aureis illis subsequentibus seculis adimpletum est: de quibus sigillatim, sed brevissime, verba faciam.

Nerva vir doctus fuit, Apollonii illius Pythagorei familiaris, et quasi discipulus: qui etiam fere expiravit in versu illo Homeri,

"Telis, Phœbe, tuis lacrymas ulciscere nostras."

Trajanus non ipse quidem doctus, sed doctrinæ ad-

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mirator, et erga literatos munificus, bibliothecarum institutor, et in cujus aula (licet imperatoris bellicosi) professores et pædagogos gratiosissimos fuisse, memoriæ proditum est. Adrianus curiosissimus mortalium, et inexplebilis omnis varietatis et secreti investigator. Antoninus subtilis et quasi scholasticus, unde etiam cymini sector vocatus est. Ex divis fratribus autem Lucius Commodus, molliori literarum genere eruditus. Marcus etiam cognomine ipso Philosophus. Hi principes, ut doctissimi, ita et optimi fuerunt. Nerva clementissimus imperator, quique, si nihil aliud, orbi Trajanum dedit. Trajanus omnium, qui imperarunt, et belli et pacis artibus maxime florens: idem imperii fines longissime protulit; idem vim dominationis modestissime cohibuit: maximorum etiam extructor operum; unde a Constantino Parietaria per invidiam vocatus est, propter nomen ejus tot parietibus incisum. Adrianus temporis ipsius æmulus: injurias enim et ruinas temporis, in quoque genere, cura et munificentia sua, reparavit. Antoninus (ut etiam appellatus est) vir maxime Pius, nativa quadam et insita bonitate, omnibus ordinibus gratus, cujusque regnum (licet haud breve) omnis calamitatis expers. Lucius Commodus fratri quidem bonitate cedens, reliquos imperatores plurimos superans. Marcus vir ad exemplar virtutis compositus, cuique scurra ille, in convivio deorum, nihil habuit, quod objiceret, præter patientiam erga mores uxoris. In hac itaque continua sex principum serie, videre cuivis liceat felicissimos fructus doctrinæ, in imperio collocatæ, in maxima orbis terrarum tabula depictos.

Jam vero doctrina, non in civilia tantum, atque artes pacis, influxum habet, sed et in militari virtute exercet vim suam ac potentiam; ut clare perspicitur in exemplis Alexandri Magni, et Cæsaris Dictatoris; quorum antea obiter meminimus, nunc vero ea paulo fusius retractabimus. Horum virtutes militares et res in bello gestas, supervacaneum esset notare, aut recensere, cum in eo genere mundi miracula extiterint: sed de amore ipsorum et studio erga literas, necnon in iisdem excellentia propria, non alienum erit, si pauca subjungamus.

Educatus fuit Alexander, edoctusque ab Aristotele, (philosopho certe magno,) qui nonnullos e libris suis philosophicis ei nuncupavit: a latere illius nunquam discedebat Callisthenes, aliique pereruditi viri, qui castra sequebantur, et perpetui erant omnium ejus itinerum et expeditionum comites: quo autem pretio literas habuerit, haud pauca liquido demonstrant: veluti invidia, qua dignam censuit Achillis fortunam, quod gestarum rerum, laudumque suarum, Homerum præconem invenerat: judicium de pretiosa Darii arcula, inter reliqua spolia reperta, de qua cum quæstio moveretur, quidnam potissimum dignum esset, quod in ea asservaretur, ipse, cum alii alia dicerent, pro Homeri operibus sententiam tulit: epistola objurgatoria ad Aristotelem missa, postquam libros physicorum edidisset, in qua expostulat, quod philosophiæ mysteria evulgasset; simulque rescribit, malle se omnibus doctrina et cognitione, quam potentia ac imperio, præcellere. Sunt et alia, quæ huc spectant. Ipse vero quam egregie animum excoluisset doctrina, in omnibus ejus dictis et responsis apparet, vel potius refulget, eruditione plenissimis; in quibus, licet numero pauca sint, quæ adhuc supersint, singularum scientiarum vestigia alte impressa reperias.

In moralibus observetur primo Alexandri apophthegma circa Diogenem, et adverte (si placet) si forte non unam ex gravissimis quæstionibus moralis philosophiæ constituat: "Utrum qui fruitur externis bonis felicior sit, an qui contemnit?" Cum enim Diogenem cerneret tam parvo contentum, conversus ad circumstantes, qui ejus conditionem subsannabant: "Nisi essem," inquit, "Alexander, optarem esse Diogenes." At Seneca in hac comparatione Diogenem prætulit, cum diceret, "Plus erat, quod Diogenes nollet accipere, quam quod Alexander posset dare."

In naturalibus, observetur illud, quod crebro usurpabat, "In duabus se rebus mortalitatem suam maxime percipere, somno et libidine:" quod sane dictum ex intima naturali philosophia depromptum est, non tam Alexandrum, quam Aristotelem aut Democritum, sapiens, cum tam indigentia, quam redundantia naturæ, per illa duo designata, mortis sint tanquam arrhabones.

In poëticis, observetur dictum illud, quum, sanguine e vulneribus ejus effluente, acceseret unum ex adulatoribus, qui ei divinitatum tribuere solebat; "Specta," inquit, "hominis iste sanguis est, non talis liquor, qualem dixit Homerus Veneris e manu manasse, vulnerata a Diomede;" hoc dicto et poëtas, et assentatores suos, et se ipsum ridens.

In dialecticis, accipe reprehensionem illam argutiarum dialecticarum, circa rejicienda et retorquenda argumenta, in dicto suo, quo perstrinxit Cassandrum delatores patris sui Antipatri repellentem. Cum enim Alexander forte dixisset, "Numquid putas, hos homines tam longum iter suscepturos fuisse, nisi justam doloris causam habuissent?" respondit Cassander, "Imo hoc ipsum animos eis dedit, quod sperabant longinquitatem viæ obstituram, quo minus calumnia proderetur." "Euge," inquit rex, "strophas Aristotelis, rem pro et contra detorquentes." Attamen hac ipsa, quam in alio carpebat, arte, cum res postularet, in commodum suum uti probe noverat. Ita enim accidit, ut Callisthenes (quem odio clam habebat, quod novæ ejus inter divos relationi refragaretur) in quodam convivio rogatus esset ab una discumbentibus, ut oblectationis gratia (cum esset vir eloquentissimus) thema aliquod pro arbitrio sibi sumeret, de quo subito diceret; ille autem annuens, et laudes gentis Macedonicæ eligens, mirifice cum omnium applausu disseruit: at neutiquam hoc delectatus Alexander, subjecit, "In bona causa, facile est cuilibet esse eloquenti; quin verte," inquit, "stylum, et quid contra nos possis, audiamus." Callisthenes negotium in se recepit, idque tam acerbe, tamque aculeate prætitit, ut Alexander interpellans diceret: "Etiam malus animus, æque ac bona causa, indit eloquentiam."

In rhetoricis, ad quæ tropi et ornamenta pertinent, ecce tibi elegantissimum metaphoræ usum, qua Antipatrum, imperiosum et tyrannicum præsidem, perstrinxit. Cum enim amicus quidam Antipatri laudaret eum coram Alexandro, quod tam moderatus esset, neque in Persicum, prout alii præfecti, luxum, usumque purpuræ, veteri Macedoniæ amictu

exuto, degeneraret: "At intus," inquit Alexander, "Antipater est totus purpureus." Etiam et illa metaphora insignis: cum Parmenio ad eum accederet, in campis Arbellæ; eique ingentem hostium exercitum monstraret, qui oculis subjacens noctu, propter infinitum numerum ignium, veluti alterum firmamentum stellatum repræsentabat; ideoque consuleret, ut nocturno prælio illos invaderet: "Nolo," inquit Alexander, "suffurari victoriam."

In politicis, atteude gravissimam illam et prudentissimam distinctionem (quam omnis posteritas amplexa est) qua duos ex præcipuis ejus amicis, Hephæstionem et Craterum, discrevit, quum diceret; "Alterum Alexandrum amare, alterum amare regem:" dissimilitudinem maximi ponderus, etiam inter fidelissimos regum servos constituens, quod alii magis dominorum suorum personas vero affectu prosequantur, alii potius moveantur officio erga principatum ipsum. Spectetur etiam quam eximie redargueret errorem, principum consiliariis familiarem, qui plerunque consilia pro modulo sui animi et fortunæ, non dominorum, suggerunt. Cum enim Darius magnas Alexandro offerret conditiones: Parmenio, "Ego," inquit, "si essem Alexander, acciperem." Subjecit Alexander, "Et ego quidem, si essem Parmenio." Postremo, excutiatur acre illud atque acutum responsum, ad amicos interrogantes, quid sibi reservaret, cum tot et tanta donaret? "Spem," inquit; quippe qui probe sciret, subductis rationibus, spem veram esse sortem, et tanquam hæreditatem ad magna aspirantium. Hæc Julii Cæsaris sors, cum proficisceus in Galliam, universas opes profusis largitionibus exhausisset. Hæc etiam sors Heurici ducis Guisi, nobilissimi principis, licet nimium ambitiosi, de quo illud increbuit, "Fœneratorem eum fuisse unum omnium Gallorum maximum, eo quod omnes opes in nominibus haberet, atque patrimonium universum in obligationes convertisset." Cæterum admiratio hujus principis, dum eum mihi, non ut Alexandrum Magnum, sed ut Aristotelis discipulum propono, longius fortasse me provexit.

Quantum ad Julium Cæsarem, non est opus, ut de præstantia eruditionis ejus, aut ex educatione, aut ex familiaribus, aut ex responsis suis, conjecturam faciamus. Hæc siquidem eminet in ejus scriptis et libris; quorum alii extant, alii infeliciter desiderantur. Primo enim hodie in manibus habetur insignis illa bellorum suorum historia, cui nomen et titulum "Commentariorum" duntaxat præfixit: in quo omnes posteri solidum rerum pondus, et viva tam actionum quam personarum simulacra, cum castissima puritate sermonis, narrationisque perspicuitate eximia, conjuncta admirantur: quas quidem dotes, non a natura infusas fuisse, sed a præceptis institutisque doctrinæ acquisitas, testatur liber ejus "De analogia:" qui nihil aliud erat, quam Grammaticalis quædam philosophia; in quo sedulo dedit operam, ut vox ad placitum, redderetur vox ad licitum; et consuetudo quoquomodo loquendi, ad congruitatem revocaretur emendate loquendi; et verba, quæ sunt rerum imagines, rebus ipsis convenirent, non vulgi prorsus arbitrium sequerentur.

Ita etiam, veluti monumentum doctrinæ, non minus quam potentiæ, emendatam ejus edicto habemus computationem anni; quæ diserte testatur, æque eum gloriæ sibi duxisse, siderum in cælis leges pernosse, ac hominibus in terris leges dedisse.

Ex libro quoque, cui titulum præposuit "Anti-Cato," facile constat, eum tanto studio accensum ad victoriam ingenii, quanto belli et armorum, obtinendam; certamen calami tum suscipientem contra maximum eo tempore pugilem, Ciceronem oratorem.

Rursus in libro "Apophthegmatum," quæ collegit, videmus, honorificentius sibi putasse, si seipsum tanquam in tabellas aut codicillos mutaret, in quos prudentia aliorum dicta graviaque referrentur; quam si dicta sua propria, velut oracula, sacrarentur, sicut inepti principes nonnulli, adulatione corrupti, sibi fieri gestiunt. Attamen si recensere vellem pleraque ejus dicta (ut feci in Alexandro) sunt ea certe hujusmodi, qualia notat Salomon, "Verba sapientum sunt tanquam aculei, et tanquam clavi in altum defixi." Itaque tria hic tantum proponam, non tam elegantia, quam vi et efficacia, mirabilia.

Primo igitur, magister sit, oportet, loquendi, qui unico verbo seditionem in exercitu comprimere potuit. Sic autem se res habuit. Romanis mos fuit, cum exercitum duces alloquerentur, Milites uti eos appellarent: cum magistratus populum, Quirites. Tumultuabantur milites Cæsaris, ac missionem seditiose flagitabant: non quod hoc ipsi cuperent, sed ut hoc postulato Cæsarem ad alias conditiones adigerent; ille immotus atque ineoncussus, silentio facto, sic exorsus est: "Ego, Quirites:" quo verbo, eos jam dimissos significabat. Eo perculsi milites et plane obstupefacti, concionantem deinceps perpetuo obturbabant; et postulato illo missionis posthabito, contra obnixe petebant, ut militum appellatio eis restitueretur.

Secundum fuit hujusmodi. Regis nomen Cæsar summe affectabat: itaque suboruati sunt nonnulli, qui prætereuntem populari acclamatione regem salutarent. Ille scutiens acclamationem tenuem fuisse, ac raram; negotium joco transmisit, ac si erratum esset in cognomine, "Non rex sum," inquit, "sed Cæsar." Dictum sane hujusmodi, ut si diligenter excutiatur, vigor ejus et pondus vix exprimi possit. Primum enim recusationem nominis præ se ferebat, sed neutiquam seriam: deinde ingentem quandam confidentiam et magnanimitatem monstrabat; ac si Cæsaris appellatio illustrior titulus esset, quam regis; quod haud secus evenit, et usque in hodiernum diem obtinuit. Sed quod illius maxime intererat, hoc dictum, summo artificio, finem suum urgebat. Hoc enim innuebat S. P. Q. R. de re levi, hoc est, nomine tantum (nam potestatem regiam jampridem habebat) secum contendere; ac tali nomine, quale complures etiam ex familiis obscuris gerebant: nam cognomen Regis multis Romanorum gentilitium erat, quemadmodum et nos simile quiddam nostro idiomate habemus.

Ultimum, quod hoc loco repetere placet, tale fuit. Cum Cæsar, post bellum initum, Romam occupasset, atque sanctius ærarium reclusisset, ut pecunias ibi congestas in usus belli tolleret, restitit Metellus, utpote tunc temporis tribunus; cui Cæsar, "Si perstes," inquit, "mortuus es." Dein reprimens se paulum, subjecit, "Adolescens, durius est mihi hoc

dicere, quam facere." Dictum tam mirifice ex terrore et clementia conflatum, ut nihil supra.

Verum ut Cæsarem mittamus; perspicuum est, eum probe sibi conscium suæ eximiæ eruditionis fuisse; ut liquet ex eo, quod demirantibus nonnullis Lucii Syllæ consilium, in deponenda dictatura, cavillans dixit, "Sylla nescivit literas, dictare non potuit."

Nunc autem tempus videtur imponendi finem huic dissertationi de arcta conjunctione militaris virtutis et literariæ (quid enim in hoc genere post Alexandrum et Cæsarem afferri potest?) nisi quod moveor unius et alterius exempli dignitate et insolentia, eo quod tam subito transierit a ludibrio ad miraculum. Est autem Xenophontis philosophi, qui e Socratis ludo profectus est in Asiam, cum Cyro juniore, in expeditione contra regem Artaxerxem. Hic Xenophon eo tempore peradolescens fuit, et nunquam aciem aut castra viderat, neque tunc præfecturam aliquam in exercitu gerebat, sed tantum sponte, ob amicitiam Proxeni, proficiscebatur. Aderat forte fortuna, cum Falinus a magno rege legatus ad Græcos veniret, postquam Cyrus in acie occubuisset, Græci autem (manipulus tantummodo hominum) duce orbati, in medio provinciarum Persiæ, a patria sua, plurimorum milliarium intervallis, et fluminibus maximis atque altissimis, interclusi essent. Legatio hue spectabat, ut, positis armis atque deditis, se regiæ clementiæ submittereat. Cui legationi antequam publice responsum esset, complures ex exercitu familiariter cum Falino colloquebantur: inter quos Xenophon ita forte locutus est. "Imo," inquit, "Faline, hæc duo tantum nobis jam supersunt, arma et virtus; si igitur arma dedamus, cui usui, obsecro, nobis erit virtus?" At Falinus subridens: "Ni fallor," inquit, "Atheniensis es, adolescens, et philosophiæ incumbis, atque bellula sunt, quæ dicis; sed valde errus, si virtutem vestram regiis copis parem esse arbitreris." Ecce ludibrium. Sequitur miraculum. Novitius iste ex schola et philosophus, postquam omnes duces et præfecti proditione interempti essent, decem millia peditum Babylone in Græciam reduxit, per medias regis provincias, omnibus ejus copiis frustra obnitentibus: quo facto stuporem injecit omnibus. Græcis autem ab eo tempore ingentes addidit animos et spiritus, ad Persarum regnum invadendum et subvertendum. Quod et mox cogitavit sane, et designavit Jason Thessalus; tentavit et inchoavit Agesilaus Spartanus; perfecit demum Alexander Macedo, omnes literati istius prævii egregio facinore incitati.

Pergamus ab imperatoria militarique virtute ad moralem, et eam, quæ est hominum privatorum. Primo, certissimum est illud poëtæ:

> "Scilicet ingenuas didicisse fideliter artes
> Emollit mores, nec sinit esse feros."

Eruditio siquidem humanas mentes feritate atque barbarie exuit. Veruntamen opus est, ut accentus sit in voce illa *fideliter*. Nam tumultuaria cognitio flectit potius in contrarium. Eruditio, inquam, levitatem, temeritatem, atque insolentiam tollit, dum omnia pericula et ambigua simul cum re ipsa suggerit; rationum et argumentorum pondera in utramque partem librat; primo quæque, quæ se offerunt animo, eaque urrident, pro suspectis habet; iterque omne tanquam exploratum inire docet. Eadem admirationem rerum vanam et nimiam evellit, radicem ipsam omnis infirmi consilii: quippe admiramur res, vel quia novæ sunt, vel quia magnæ. Quantum ad novitatem, nemo est, qui literas, et rerum contemplationem penitus imbiberit, quin illud cordi impressum habeat, "Nil novi super terram." Neque enim puparum ludum quisquam magnopere mirabitur, qui pone aulæa caput inserens, organa, quibus movemur, et filamenta cernit. Quantum ad magnitudinem, quemadmodum Alexander Magnus, ingentibus prœliis et victoriis in Asia assuetus, cum interdum acciperet e Græcia literas, de expeditionibus et dimicationibus quibusdam illic factis, quæ plerunque propter pontem aliquem, aut castellum, aut ad summum pro expugnatione oppidi alicujus suscipiebantur, dicere solebat; "Videri sibi nuncium allatum de maarum et murium pugna, de qua Homerus:" sic certe, qui universitatem rerum, ejusque fabricam intueantur, illi terræ globus, cum hominibus superstantibus (si divinitatem animarum seponas) haud majus quidpiam videbitur, quam colliculus formicarum; quarum aliæ cum granis, aliæ cum ovis suis, aliæ vacuæ, omnes hinc inde circa exiguum pulviculi acervum reptant, et cursitant. Porro eruditio aufert, aut saltem minuit timorem mortis, atque adversæ fortunæ, quo nihil magis virtutibus moribusque officere solet. Si enim animus cujuspiam, contemplatione mortalitatis, et rerum naturæ corruptibilis, imbutus fuerit et intinctus, juxta cum Epicteto sentiet; qui, cum pridie exiens, mulierculam ob fractam ollam plorantem cerneret, postridie etiam exiens aliam mortuum filium defleatem conspiceret, dixit; "Heri vidi fragilem frangi, hodie vidi mortalem mori." Quare optime et valde sapienter Virgilius, cognitionem causarum cum metus omnis profligatione copulavit, tanquam coacomitantia:

> "Felix qui potuit rerum cognoscere causas,
> Quique metus omnes et inexorabile fatum
> Subjecit pedibus, strepitumque Acherontis avari."

Nimis longum esset singula percurrere remedia, quæ singulis animi morbis doctrina suppeditat; aliquando vitiosos humores expurgans, nonnunquam obstructiones aperiens, alias concoctionem juvans, alias appetitum excitans, non raro vulnera ejus et ulcera sanans, et similia. Quare concludam cum hoc, quod videtur rationem habere totius, ita nimirum animum doctrinam disponere, et flectere, ut nunquam protinus acquiescat et tanquam congeletur in defectibus suis, quin incitet se semper, progressumque spiret. Nescit illiteratus, quid sit in se descendere, aut secum inire rationes, aut quam suavis vita sit, quæ indies sentit se fieri meliorem; si qua forte virtute præditus sit, eam venditabit scilicet, et ubique spectandam exponet, eaque utetur forsitan commode, quam tamen excolere et augere negligit. Rursus, si quo vitio laborat, artem atque industriam illud celandi atque occultandi, minime autem corrigendi, adhibebit; tanquam malus messor, qui perpetuo demetit, falcem autem nunquam exacuit; literatus contra, non tantum utitur animo virtutesque exercet, sed continue emendat se, et in virtute proficit. Imo ut in summa

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dicam, pro certo est veritatem et bonitatem distingui tantum, sicut sigillum et impressionem; nam veritas bonitatem signat: et contra, vitiorum ac perturbationum procellæ, ex erroris et falsitatis nubibus erumpunt.

A virtute transeamus ad potentiam et imperium, et dispiciamus si uspiam inveniatur tanta potentia et regnum, quanta eruditio hominis naturam investit et coronat. Videmus dignitatem imperandi sequi dignitatem ejus, cui imperatur. Imperium in belluas et pecora, quare bubuleorum, aut opilionum, res vilis: imperium in pueros, quale ludimagistrorum, minus honorificum: imperium in mancipia, potius dedecori est quam honori: neque multo præstantius est imperium tyrannorum, in populum servilem, atque animis et generosa indole exutum. Unde hoc semper manavit judicium, honores liberis monarchiis, aut rebuspublicis suaviores esse, quam sub tyrannis; quia imperium honorificum magis supra volentes est, quam supra invitos et coactos. Ideoque Virgilius, cum ex intimo artificio inter humanos honores longe vellet optimos expromere, quos Augusto Cæsari assignaret, in hæc ipsa verba loquitur:

"Victorque volentes
Per populos dat jura, viamque affectat Olympo."

Ast imperium scientiæ longe celsius est, quam imperium in voluntatem, licet liberam et non astrictam. Illa enim rationi, fidei, et intellectui ipsi dominatur, qui est altissima pars animi, et voluntatem ipsam regit. Etenim nulla proculdubio terrena est potestas, quæ in spiritibus hominum et animalibus, eorumque cogitationibus et phantasiis, assensu quoque et fide, thronum et quasi cathedram suam erigit et collocat, præter doctrinam et scientiam. Ac ideireo videmus detestabilem illam, et immensam delectationem, qua hæresiarchæ, falsi prophetæ, et impostores magni perfunduntur, et rapiuntur, postquam senserint in fide et conscientiis hominum cœpisse se regnare: tantam certe, ut qui eam semel degustaverit, nullis fere persecutionibus aut tormentis adigi possit, ut hoc regno se abdicet. Sicut autem hoc illud est, quod in Apocalypsi dicitur, "abyssus sive profunda Satanæ:" ita e contrario, justus et legitimus in animos hominum dominatus, veritatis ipsa evidentia ac commendatione dulcissima stabilitus, sane quam proxime ad potestatis divinæ similitudinem accedit.

Quod ad fortunas et honores spectat, munificentia doctrinæ non sic regna integra et respublicas locupletat, et ditat, ut non hominum etiam privatorum fortunas et opes amplificet, et evehat. Vetus enim observatio est, Homerum pluribus suppeditasse victum, quam Syllam, Cæsarem, aut Augustum, licet tot congiaria, tot donativa, tot agrorum assignationes largiti sint. Certe difficile dictu est, arma an literæ plurium fortunas constituerint. Quin si de summa potestate loquamur, videmus, si arma, aut jus hæreditatis regnum contulerunt, at literarum sorti sæpius cessisse sacerdotium, quod regni semper fuit rivale.

Rursus, si deleetationem jucunditatemque scientiæ intuearis, multum sane illa voluptates alias omnes exuperat. Quid enim? num forte affectuum voluptates tanto intervallo obleetamenta sensuum excedent, quanto voti asseeutio felix eantiunculam aut eœnam: et non pari gradatione intellectus voluptates, eas, quæ sunt affeetuum, transcendent? In cæteris oblectationibus satietas est finitima, et postquam paulo inveteraverint, flos ipsarum et venustas marcescit: quo docemur non illas liquidas revera voluptates ac sinceras fuisse, sed umbras tantum, et fallacias voluptatum, non tam qualitate sua, quam novitate, jucundas: unde et voluptarii sæpius fiunt monachi, et ambitiosorum principum senectus tristior fere est, et melancholia obsessa. Scientiæ autem non est satietas, verum et fruendi, et appetendi perpetuo et subinde reeurrens vicissitudo; ut necesse sit hujus delectationis bonum simplex esse, non ex aceidente, aut cum fraude. Neque illa voluptas, quam depingit Lucretius, ultimum in animo locum sortitur:

"Suave mari magno turbantibus æquora ventis, &c."

"Suave est spectaculum (inquit) stantem, aut ambulantem in littore, navem intueri tempestate in mari jactatam: suave itidem ex edita turri duas cernere aeies concursantes in planitie: at nil dulcius est homini, quam mens per doctrinam in aree veritatis collocata, unde aliorum errores et labores dispicere possit."

Denique, ut mittamus vulgaria illa argumenta, quod per doctrinam scilicet "homo homini in eo præstat, in quo ipse brutis:" quod ope doctrinæ ascendat homo intelleetu usque ad cœlos, quo corpore non potest, et alia similia: cum eo eoneludamus bono hane dissertationem de literarum exeellentia, ad quod humana natura ante omnia aspirat, hoc est, immortalitate et æternitate. Huc enim spectant proereatio sobolis, nobilitatio familiæ, ædificia, fundationes, monumenta, fama, ac denique humanorum votorum summa. Atqui videmus monumenta ingenii et eruditionis, quanto diutius durent, quam ea, quæ opere et manu faeta sunt. Annon Homeri carmina viginti quinque annorum centurias et supra, absque unius syllabæ, aut literæ jactura, duraverunt? quo spatio innumera palatia, templa, castella, urbes, collapsa sunt, aut diruta; pieturæ ac statuæ Cyri, Alexandri, Cæsaris, imo regum et prineipum multo recentiorum, nullo jam sunt modo parabiles: archetypa enim ipsa, jamdudum confecta vetustate, perierunt; excmpla autem indies primigenia similitudine mulctantur. At ingeniorum imagines perpetuo integræ manent in libris, nullis temporum injuriis obnoxiæ, utpote quæ jugem renovationem recipere possunt: quanquam nec imagines dici proprie possint, quia perpetuo generant quodammodo, seminaque sua in animos hominum spargunt, atque ætatibus subsequentibus infinitas actiones opinionesque suscitant, et progignunt. Quod si navis inventum res existimata tam nobilis et admirabilis fuerit, quæ opes mercesque hine inde transportat, regiones, locis disjunetissimas, partieipatione fruetuum et commodorum consociat; quanto rectius literæ eelebrari debent, quæ, tanquam naves sulcantes oceanum temporis, remotissima secula ingeniorum et inventorum commercio et societate copulant? Porro videmus, nonnullos philosophorum, qui maxime immersi erant sensibus, minimeque divini, atque immortalitatem animæ præfraete negabant; hoc tamen vi veritatis adactos eoneessisse, quoscunque motus et aetus anima

humana absque corporis organo præstare possit, eos etiam post mortem permanere probabile esse: quales nimirum erant intellectus, minime autem affectuum motus. Adeo scilicet scientia immortalis visa est res illis atque incorruptibilis. Nos autem, quibus divina revelatio illuxit, conculcantes hæc rudimenta atque offucias sensuum, novimus non solum mentem, sed et affectus perpurgatos, neque animam tantum, sed etiam corpus, ad immortalitatem assumptum iri suo tempore. Sed enim meminerint homines, et nunc et alias ubi opus fuerit, me in probationibus de dignitate scientiæ, inde ab initio sejunxisse testimonia divina ab humanis; quam methodum constanter retinui, separatim utrumque explicans.

Quamvis vero hæc ita sint, nequaquam tamen hoc mihi sumo, neque me consequi posse confido, ut ulla causæ hujus pro doctrina peroratione, aut actione, judicia rescindam, vel Æsopici galli, qui granum hordei gemmæ prætulit; vel Midæ, qui cum arbiter factus esset inter Apollinem Musarum, et Panem ovium præsidem, opulentiæ palmam detulit; vel Paridis, qui, spreta sapientia ac potentia, primas voluptati et amori dedit; vel Agrippinæ eligentis, "occidat matrem, modo imperet," imperium licet cum conditione detestanda præoptantis; vel Ulyssis, "qui vetulam prætulit immortalitati;" typi certe eorum, qui consueta optimis præponunt; plurimaque ejusmodi judicia popularia: hæc enim antiquum obtinebunt: verum et illud etiam manebit, cui innixa est semper doctrina, tanquam firmissimo fundamento, quodque nunquam labefactari poterit, "Justificata est sapientia a filiis suis."

FRANCISCI

BARONIS DE VERULAMIO, VICE-COMITIS SANCTI ALBANI,

DE

DIGNITATE ET AUGMENTIS SCIENTIARUM.

LIBER SECUNDUS

AD REGEM SUUM.

Consentaneum videri possit, tametsi non raro secus eveniat (rex optime) ut, qui sobole numerosa aucti sunt, quique immortalitatem suam in posteris ipsorum quasi prospectant, præ cæteris mortalibus sint soliciti de statu futurorum temporum; utpote quibus, satis intellignnt, carissima illa sua tandem debere pignora transmitti. Elizabetha regina, propter vitam cœlibem, hospes potius in mundo, quam incola, fuit; sua quidem tempora ornavit, et in multis beavit. Enimvero tuæ majestati (cui Deus pro benignitate sua dedit tot suscipere liberos, dignos certe qui te perpetuent, cujusque ætas vigens, et torus fœcundus adhuc plures pollicetur) usquequaque convenit, non modo tuum (quod facis) seculum irradiare; verum etiam ad illa curas tuas extendere, quæ memoria omnis alat, quæque ipsa intueatur æternitas. Inter ea autem (nisi studium meum erga literas me fallit) nil dignius est, aut nobilius, quam si dotetur orbis terrarum augmentis scientiarum solidis et fructuosis. Quousque enim tandem parvulos aliquos scriptores statuemus nobis, tanquam Columnas Herculis, ne plus ultra in doctrinis progrediamur, cum habeamus majestatem tuam, instar lucidi et benigni sideris, quod nos inter navigandum conducat, et fortunet?

Ut igitur ad rem redeamus: recolamus jam, et nobiscum perpendamus, quid principes viri aliique hucusque ad literarum amplificationem attulerint, quid prætermiserint? hoc autem presse et distincte excutiamus, sermone quodam activo et masculo, nusquam digrediendo, nil amplificando. Ponatur igitur illud (quod quivis concedat) opera quæque maxima et difficillima, vel præmiorum ampliudine, vel consiliorum prudentia et sanitate, vel laborum junctione superari: quorum primum conatum exstimulat, secundum ambages et errores tollit, tertium mortalium fragilitati succurrit. At inter hæc tria merito primas tenet "Consilii prudentia et sanitas;" hoc est, monstratio et delineatio viæ rectæ et proclivis ad rem, quæ proponitur, peragendam. "Claudus enim (quod dici solet) in via antevertit cursorem extra viam:" et Salomon perapposite ad hanc rem: "Ferrum si retusum fuerit, viribus utendum majoribus: quod vero super omnia prævalet, est sapientia." Quibus verbis innuit, medii prudentem electionem efficacius conducere ad rem, quam virium aut intentionem, aut accumulationem. Hæc ut dicam illud impellit, quod (salvo semper eorum honore, qui de literis quomodocunque meruerunt) perspicio atque animadverto, opera eorum atque acta pleraque, ad magnificentiam potius et nominis sui memoriam, quam ad scientiarum ipsarum profectum et augmenta,

spectasse : et literatorum potius numerum auxisse, quam artibus ipsis multum incrementi attulisse.

Actiones autem et opera, quæ ad literas amplificandas pertinent, circa tria versantur objecta : circa literarum sedes ; circa libros ; et circa personas eruditorum. Quemadmodum enim aqua, sive ex cœlesti rore descendens, sive ex fontibus scaturiens, facile disperditur, et dispergitur, nisi colligatur in aliqua receptacula, ubi per unionem et congregationem se sustentare, et fovere possit (quem in finem excogitavit solertia humana aquæductus, cisternas, stagna, eaque etiam variis ornamentis condecoravit, quæ magnificentiæ et dignitati, non minus quam usui et necessitati, deserviant) similiter liquor iste scientiæ pretiosissimus, sive a divina inspiratione destillet, sive e sensibus exiliat, mox periret omnis atque evanesceret, nisi conservaretur in libris, traditionibus, colloquiis, ac præcipue in locis certis his rebus destinatis, quales sunt academiæ, collegia, scholæ, ubi et permanentes habeat sedes, et crescendi insuper, et se congregandi copiam et facultatem.

Ac primo, opera, quæ ad Musarum sedes spectant, quatuor numerantur: ædificiorum structura ; proventuum dotatio ; privilegiorum concessio ; disciplinæ lex et institutio ; quæ omnia ad secessum et otium (ut plurimum) conferunt et ad vacationem a curis et molestiis : qualia sunt, quæ ad alvearia constituenda, in usum mellis, requirit Virgilius ;

> "Principio sedes apibus, statioque petenda,
> Quo neque sit ventis aditus, etc."

At opera circa libros duo sunt præcipua. Primum bibliothecæ, in quibus, tanquam mausoleis, priscorum sanctorum reliquiæ, virtutis plenæ, conditæ sunt. Secundo, novæ editiones auctorum, emendatioribus impressionibus, fidelioribus versionibus, utilioribus commentariis, annotationibus magis diligentibus, et hujusmodi famulitio, instructæ et ornatæ.

Porro opera, quæ literatorum hominum personas respiciunt (præterquam quod ipsi ornandi sint et promovendi) sunt etiam duo : remuneratio et designatio lectorum, in artibus jamdudum inventis et cognitis ; et remuneratio ac designatio scriptorum, circa eas doctrinæ partes, quæ non satis hactenus excultæ et elaboratæ sunt.

Hæc summatim opera sunt et acta, in quibus inclytorum principum, aliorumque illustrium virorum promerita erga rem literariam claruerunt. De particulari alicujus commemoratione, qui de literis bene meruit, cogitanti, occurrit illud Ciceronis, quod eum, post reditum suum, ad gratias promiscue agendas impulit ; "difficile non aliquem, ingratum quenquam præterire." Potius (ex Scripturarum consilio) spatium intueamur, quod adhuc restat in stadio decurrendum ; quam oculos reflectamus ad ea, quæ a tergo jampridem reliquimus.

Primum igitur, inter tot totius Europæ collegia, præclarissime fundata, omnia illa certis professionibus destinata esse demiror, nulla liberis atque universalibus artium et scientiarum studiis dedicata. Nam si quis judicet doctrinam omnem referendam esse ad usum et actionem, recte sapit : veruntamen facile est, isto modo prolabi in errorem illum, quem fabula perantiqua perstringit ; in qua cætera corporis membra litem ventriculo intenderunt, quod neque motum præberet, ut artus, neque sensum, ut caput : quamvis interea alimentum coctum atque confectum ventriculus ille in reliquum corpus divideret : plane eodem modo, qui in philosophia ac contemplationibus universalibus positum omne studium, inane atque ignavum arbitratur, non animadvertit, singulis professionibus, et artibus exinde succum et robur suppeditari. Atque certe persuasum habeo, hanc ipsam haud minimam causam fuisse, cur felicior doctrinæ progressus hucusque retardatus sit ; quod opera hisce fundamentalibus scientiis navata sit tantum in transitu, neque haustus pleniores inde epoti. Nam si arborem solito fructuosiorem fieri cupias, de ramis medicandis frustra cogitaveris ; terra ipsa circa radicem subigenda, et gleba lætior admovenda, aut nihil egeres. Neque rursus silentio prætermittendum est, hanc collegiorum et societatum, in usum tantummodo doctrinæ professoriæ, dedicationem, non solum scientiarum incrementis inimicam fuisse, sed etiam in regnorum et rerumpublicarum detrimentum cessisse. Hinc enim fieri solet ut principes, delectum habituri ministrorum, qui rebus civilibus tractandis sint idonei, ejusmodi hominum miram solitudinem circa se reperiant ; propterea quod non habeatur educatio aliqua collegiata, in hos usus destinata, ubi scilicet homines, a natura ad hoc facti et comparati (præter artes alias) historiæ, linguis modernis, libris et tractatibus politicis, præcipue incumbant ; ut inde ad civilia munera magis habiles et instructi accedant.

Quoniam vero fundatores collegiorum plantant, prælectionum vero rigant, sequitur jam ordine, ut dicam quid in publicis lectionibus desideretur : nimirum, improbo vel maxime tenuitatem stipendiorum, prælectoribus sive artium, sive professionum (præsertim apud nos) assignatam. Interest enim imprimis progressus in scientiis, ut lectores in unoquoque genere ex optimis instructissimisque eligantur : utpote quorum opera, non in usum transitorium, sed ad sufficiendam sobolem scientiæ in secula adhibeatur. Id fieri nequit, nisi præmia et conditiones tales constituantur, quibus eminentissimus quisque in ea arte plane contentus esse possit ; ut illi demum grave non sit, in eodem munere immori, neque practicam cogitet. Quocirca scientiæ ut floreant, militaris lex servanda Davidis ; "ut æqua esset pars descendentis ad prælium, et manentis ad sarcinas :" sarcinis male aliter prospectum erit. Sic lectores in scientiis sunt tanquam conservatores et custodes totius literarii apparatus, unde praxis et militia deinceps scientiarum instruatur : proinde æquum est, ut merces ipsorum lucra practicorum exæquare possit. Aliter si patribus scientiarum præmia non constituantur satis ampla et luculenta, eveniet illud ;

> "Et patrum invalidi referent jejunia nati."

Defectum nunc notabo alium, in quo alchemista quispiam in auxilium advocandus foret ; cum id genus hominum studiosis auctores sint, ut libros vendant, fornaces extruant, Minervam ac Musas (tanquam virgines steriles) descrant, ac Vulcano se applicent. Fatendum est enimvero, tam ad penetralia contemplationis, quam ad operativæ fructum, in nonnullis

scientiis (præsertim naturali philosophia et medicina) haud unica subsidia e libris petenda esse. Qua in re neutiquam omnino cessavit munificentia hominum; quippe videmus, non libros magis, quam sphæras, globos, astrolabia, mappas, et alia similia, ut adminicula quædam astronomiæ et cosmographiæ, comparari et studio præberi. Videmus etiam, loca nonnulla, medicinæ studio dicata, hortos habere pro simplicium cujusque generis inspectione et notitia; nec usu mortuorum corporum ad observationes anatomicas destitui. Cæterum hæc ad pauca spectant. In genere pro certo habeatur, magnos, in rebus naturæ abditis eruendis et reserandis, progressus vix fieri posse, nisi ad experimenta, sive Vulcani, sive Dædali (fornacis scilicet, aut machinæ, vel cujuscunque alterius generis) sumptus abunde suppeditentur. Idcoque sicut principum secretariis et emissariis conceditur exhibere rationes expansarum, pro diligentiis suis in explorando et eruendo res novas, et arcana civilia; similiter et exploratoribus ac speculatoribus naturæ satisfaciendum de expensis suis; alias de quamplurimis scitu dignissimis nunquam fiemus certiores. Si enim Alexander magnam vim pecuniæ suppeditavit Aristoteli, qua conduceret venatores, aucupes, piscatores, et alios, quo instructior accederet ad conscribendam historiam animalium, certe majus quiddam debetur iis, qui non in saltibus naturæ pererrant, sed in labyrinthis artium viam sibi aperiunt.

Defectus etiamnum alius nobis observandus (magni certe momenti) neglectus quidam est, in academiarum rectoribus, consultationis; in regibus sive superioribus, visitationis, in hunc finem, ut diligenter consideretur et perpendatur, utrum prælectiones, disputationes, aliaque exercitia scholastica, antiquitus instituta, et ad nostra usque tempora usitata, continuare fuerit ex usu, vel potius antiquare, aliaque meliora substituere. Etenim inter majestatis tuæ canones prudentissimos, illum reperio; "In omni vel consuetudine, vel exemplo, tempora spectanda sunt, quando primum res cœpta: in quibus, si vel confusio regnaverit vel insicitia, derogat illud imprimis auctoritati rerum, atque omnia reddit suspecta." Quamobrem, quandoquidem academiarum instituta plerunque originem traxerint a temporibus, hisce nostris haud paulo obscurioribus et indoctioribus; eo magis convenit, ut examini denuo subjiciantur. Exemplum in hoc genere unum aut alterum proponam; in rebus, quæ maxime obviæ videntur et familiares. Pro more receptum est (licet, uti mihi videtur, perperam) ut literarum studiosi logicam, et rhetoricam, præpropere nimis addiscant; artes sane provectioribus magis convenientes, quam pueris et tironibus. Etenim hæ duæ, si vere res perpendatur, sunt ex artibus gravissimis; cum sint *artes artium*, altera ad judicium, altera ad ornatum. Quinetiam regulam et normam continent, res et materiam subjectam vel disponendi, vel illustrandi. Ideoque id agere, ut mentes rerum ignaræ, et rudes (quæque nondum id collegerunt, quod a Cicerone sylva vel supellex appellatur, id est, materiam et copiam rerum) initium ab istis scientiis sumant (ac si quis discere vellet ponderare, vel metiri, vel ornare ventum) haud aliud profecto parit, quam ut harum artium virtus et facultas (quæ permagnæ sunt et latissime diffusæ) fere contemptæ jaceant, atque vel in puerilia sophismata affectationesque ridiculas degeneraverint, vel saltem existimatione sua haud parum mulctatæ sint. Quinetiam præmatura et intempestiva ad has artes accessio dilutam earum atque jejunam traditionem ac tractationem necessario secum traxit, qualis nimirum captui puerorum adaptetur. Alterum exemplum (quod adducam) erroris, qui in academiis jam diu inveteravit, ejusmodi est; quod scilicet inventionis atque memoriæ, in exercitiis scholasticis, fieri solet nimio plus noxium divortium: illic siquidem orationes pleræque, aut omnino præmeditatæ sunt, adeo ut conceptis verbis proferantur, et inventioni nihil relinquatur; aut plane extemporariæ, ut perperam relinquatur memoriæ (cum in vita communi et praxi, rarus sit alterutrius istorum usus seorsum, sed potius mixturæ ipsorum: id est, notarum sive commentariorum, atque dictionis subitæ) ita ut hoc pacto exercitia ad praxim haud sint accommodata, nec imago respondeat vitæ. Illud autem in exercitiis perpetuo tenendum est; ut omnia (quam fieri potest) maxime repræsentent ea, quæ in vitæ agi solent: alioqui motus et facultates mentis pervertent, non præparabunt. Hujus autem rei veritas non obscure cernitur, cum academici ad praxim suarum professionum, vel alia civilis vitæ munia se accingant: quod cum faciunt, hunc, de quo loquimur, defectum, ipsi in se cito deprehendunt; sed citius etiamnum alii. Cæterum hanc partem, de institutorum academicorum emendatione, clausula illa (ex Cæsaris quadam ad Oppium et Balbum epistola desumpta) concludam: "Hoc quemadmodum fieri possit, nonnulla mihi in mentem veniunt, et multa reperiri possunt: de iis rebus rogo vos, ut cogitationem suscipiatis."

Alter defectus, quem observo, altius paulo, quam præcedens, ascendit. Quemadmodum enim doctrinarum progressio, haud parum in prudenti regimine et institutione academiarum singularum consistit; ita magnus ad hoc cumulus accedere possit, si academiæ universæ, per totam Europam sparsæ, arctiorem conjunctionem et necessitudinem contraherent. Sunt enim, uti videmus, multi ordines et sodalitia, quæ licet regnis et spatiis longinquis disjuncta sint, tamen societatem, et tanquam fraternitatem, inter se ineunt, et colunt; adeo ut habeant præfectos (alios provinciales, alios generales) quibus omnes parent. Et certe, quemadmodum natura creat fraternitatem in familiis; artes mechanicæ contrahunt fraternitatem in sodalitiis; unctio divina superinducit fraternitatem in regibus et episcopis; vota et regulæ conciliant fraternitatem in ordinibus: eodem modo fieri non potest, quin intercedat fraternitas illustris et generosa, inter homines, per doctrinas et illuminationes, quandoquidem Deus ipse Pater luminum nuncupetur.

Postremo illud queror (de quo superius nonnihil præmisi) quod vel nunquam, vel raro admodum, publica aliqua extiterit designatio virorum idoneorum, qui vel scriberent, vel inquisitionem instituerent, de illis scientiarum partibus, in quibus satis adhuc non fuerit elaboratum. Cui rei illud inserviet quam maxime, si tanquam lustrum condatur

doctrinarum; et census excipiatur, quæ ex illis locupletes sint, et majorem in modum auctæ, quæ autem inopes et destitutæ. Opinio enim copiæ, inter causas inopiæ est; atque multitudo librorum luxuriæ potius, quam penuriæ indicium quoddam præ se fert. Quæ tamen redundantia (si quis recte judicet) neutiquam delendis antehac scriptis libris, sed novis melioribus edendis tolli debet, qui ejus generis sint, ut, tanquam "serpens Moses, serpentes magorum" devorent.

Horum, quos enumeravimus, omnium defectuum remedia, præter illius postremi, quin etiam ejusdem postremi, quoad partem ejus activam, quæ spectat ad designationem scribentium, opera sunt vere basilica: erga quæ privati alicujus conatus et industria fere sic se habeat, ut Mercurius in bivio: qui digitum potest in viam intendere, pedem inferre non potest. At speculativa illa pars, quæ ad examen doctrinarum (quid nimirum in singulis desideretur) pertinet, etiam industriæ hominis privati patet. Mihi igitur in animo est, perambulationem doctrinarum, et lustrationem generalem et fidelem aggredi, præcipue cum inquisitione sedula et accurata, quænam earum partes negletæ inculteque jaceant, hominum industria nondum subactæ, et ad usum conversæ; ut hujusmodi delineatio et registratio, et publicis designationibus, et privatorum spontaneis laboribus facem accendat. In quo nihilominus consilium est, hoc tempore omissiones duntaxat, et desiderata notare: non autem errores et infelicitates redarguere: aliud enim est inculta loca judicare, aliud culturæ modum corrigere.

Quam quidem ad rem, cum me comparo, et accingor; non sum nescius, quantum opus moveam, quamque difficilem provinciam sustineam; etiam quam sint vires minime voluntati pares: attamen magnam in spem venio, si ardentiur meus erga literas amor me longius provexerit, usurum me excusatione affectus; quia non simul cuiquam conceditur, *amare et sapere*. Nescius equidem non sum, eandem judicii libertatem aliis relinquendam, quam ipse usurpaverim. Equidem libenter æque acceperim ab aliis, ac impertiverim, humanitatis illud officium: "Nam qui erranti comiter monstrat viam," etc. Prospicio etiam animo complura ex illis, quæ tanquam omissa et desiderata in registrum hoc nostrum referre visum fuerit, in diversas censuras incursura: alia scilicet quod sint dudum peracta, et jam extent: alia quod curiositatem sapiant, et fructum promittant perexilem: alia quod nimis ardua existant, et fere impossibilia, quæ ab hominibus absolvantur. Ad priora duo quod attinet, res ipsæ pro se causam agent; circa postremum de impossibilitate ita statuo: ea omnia possibilia et præstabilia censenda, quæ ab aliquibus perfici possint, licet non a quibusvis; et quæ a multis conjunctim, licet non ab uno; et quæ in successione seculorum, licet non eodem ævo; et denique quæ publica cura et sumptu, licet non opibus et industria singulorum. Si quis tamen sit, qui malit Salomonis illud usurpare: "Dicit piger, Leo est in via;" quam illud Virgilii: "Possunt, quia posse videntur:" satis mihi erit, si labores mei inter vota tantum sive optata melioris notæ habeantur. Sicut enim haud omnino rei imperitum esse oportet, qui quæstionem apposite instituat; ita nec sensus inops videatur, qui haud quaquam absurda optaverit.

PARTITIO UNIVERSALIS DOCTRINÆ HUMANÆ.

MEMORIA.

HISTORIA.

- NATURALIS.
  - Narrativa.
  - Inductiva.
    - Historia generationum.....
      - Historia cœlestium.
      - Historia meteororum.
      - Historia globi terræ et maris.
      - Historia collegiorum majorum, sive Elementorum.
      - Historia collegiorum minorum, sive Specierum.
    - Historia præter-generationum.
    - Historia artium.
- CIVILIS.
  - Ecclesiastica.....
    - Ecclesiastica specialis.
    - Historia ad prophetias.
    - Historia Nemeseos.
  - Literaria.
  - Civilis specialis.
    - 1.
      - Memoriæ
        - Commentarii.
        - Registra.
      - Historia justa
        - Chronica temporum
          - 1. Historia universalis.
          - Historia particularis.
        - Vitæ personarum.
        - Relationes actionum.
          - 2. Annales.
          - Acta diurna.
      - Antiquitates.
    - 2.
      - Mera.
      - Mixta.
- APPENDICES HISTORIÆ.....
  - Orationes.
  - Epistolæ.
  - Apophthegmata.

PHANTASIA.

POESIS.
- NARRATIVA.
- DRAMATICA.
- PARABOLICA.

THEOLOGIA INSPIRATA. Ejus Partitiones Theologis relinquuntur.

PHILOSOPHIA.

- **Appendices Theologiæ inspiratæ.**
  - Doctrina de legitimo usu rationis humanæ in divinis.
  - Doctrina de gradibus unitatis in civitate Dei.
  - Emanationes Scripturarum.
- **Doctrina de natura.**
  - Doctrina de Numine, sive Theologia naturalis.
    Theologiæ, tam inspiratæ quam naturalis, Appendix—Doctrina de angelis et spiritibus.
  - **Speculativa.**
    - Philosophia Prima .....
      - Axiomata Scientiarum communia.
      - Conditiones entium transcendentes.
    - Physica specialis .....
      - Doctrina de principiis rerum.
      - Doctrina de fabrica rerum.
      - Doctrina de varietate rerum .....
        - Doctrina de concretis ; *quæ dividitur sicut* Hist. Nat.
        - Doctrina de abstractis .....
          - Doctrina de schematismis materiæ.
          - Doctrina de motibus.
    - Appendices Physicæ .....
      - Mensura motuum.
      - Problemata naturalia.
      - Placita antiquorum philosophorum.
    - Metaphysica .....
      - Doctrina de formis rerum.
      - Doctrina de causis finalibus.
  - **Operat.**
    - Mechanica.
    - Magia.
    - Appendices duæ operativæ.
      - Inventarium opum humanarum.
      - Catalogus polychrestorum.

Philosophiæ naturalis, tam speculativæ, quam operativæ, Appendix magna—Mathematica .....

- Pura
  - Geometria.
  - Arithmetica—Algebra.
- Mixta
  - Perspectiva.
  - Musica.
  - Astronomia.
  - Cosmographia.
  - Architectura.
  - Machinaria.

- **Doctrina generalis de natura, et statu hominis.**
  - Doctrina de persona hominis.
    - Doctrina de miseriis hominum.
    - Doctrina de prærogativis hominum.
  - Doctrina de fœdere animi et corporis.
    - Doctrina de indicationibus .....
      - Physiognomia.
      - Interpretatio somniorum.
    - Doctrina de impressionibus.
- **Doctrina circa corpus hominis.**
  - Medicina .....
    - Conservatio sanitatis.
    - Curatio morborum.
    - Prolongatio vitæ.
  - Cosmetica .....
    - Civilis.
    - Effœminata.
  - Athletica .....
    - Agilitas.
    - Tolerantia.
  - Voluptaria .....
    - Pictoria.
    - Musica.
- Doctrina de spiraculo,
- Doctrina de anima sensibili .....
  - Doctrina de motu voluntario.
  - Doctrina de sensu et sensibili.
- Doctrina de substantia et facultatibus animæ.
- Appendices doctrinæ de facultatibus animæ.
  - Divinatio.
  - Fascinatio.

- **Doctrina de Homine.**
  - **Philosophia Humanitatis.**
    - **Doctrina circa Animam Hominis.**
      - **Doctrina de usu et objectis facultatum animæ.**
        - **Logica.**
          - **Ars inveniendi**
            - Doctrina de inveniendis artibus.
            - Doctrina de inveniendis argumentis.
              - Indicium ab experimentis ad experimenta, sive Experientia literata.
              - Indicium ab experimentis ad axiomata, sive Inductio.
              - Prompturaria.
              - Topica
                - Generalis.
                - Particularis.
          - **Ars judicandi**
            - Judicium per inductionem.
              - Reductio directa.
              - Reductio inversa.
            - Judicium per syllogismum.
              - 1. Analytica.
              - 2. Doctrina de elenchis
                - Elenchi sophismatum.
                - Elenchi hermeniæ.
                - Elenchi imaginum sive idolorum ...
                  - Idola tribus.
                  - Idola specus.
                  - Idola fori.
          - **Appendix artis judicandi**—Analogia demonstrationum pro natura subjecti.
          - **Ars retinendi**
            - Doctrina de adminiculis memoriæ.
              - Doctrina de memoria ipsa.
                - Prænotio.
                - Emblema.
            - Doctrina de organo sermonis, sive Grammatica literaria.
              - Doctrina de notis rerum
                - Hieroglyphica et Gestus.
                - Characteres reales.
              - Doctrina de Locutione—Sonus. Mensura. Accentus.
              - Doctrina de Scriptione
                - Alphabeta.
                - Ciphræ—Deciphratio.
          - **Ars tradendi**
            - Doctrina de methodo sermonis, sive Prudentia traditiva
              - Magistralis aut initiativa.
              - Exoterica vel acroamatica.
              - Per aphorismos aut methodice.
              - Per assertiones aut per quæstiones.
              - Per informationes, et anticipationes prius infusas aut impressas.
            - Methodi partes duæ
              - Dispositio totius operis vel argumenti.
              - Limitatio propositionum.
            - Doctrina de illustratione sermonis, sive Rhetorica.
              - Colores boni et mali.
            - Appendices tres Rhetoricæ
              - Antitheta rerum.
              - Formulæ minores orationum.
          - **Appendices duæ**
            - Traditivæ
              - Critica.
              - Pædagogica.
        - **Ethica.**
          - **Doctrina de exemplari**
            - Bonum simplex
              - Bonum individuale
                - Bonum activum.
                - Bonum passivum
                  - Conservativum.
                  - Perfectivum.
              - Bonum communionis
                - Officia generalia.
                - Officia respectiva.
            - Bonum comparatum.
          - **Georgica animi**
            - Doctrina de characteribus animorum.
            - Doctrina de affectibus.
            - Doctrina de remediis.
          - **Appendix doctrinæ de cultura animi**—Congruitas inter bonum animi et bonum corporis.
    - **Doctrina civilis**
      - Doctrina de conversatione.
        - Doctrina de occasionibus sparsis.
      - Doctrina de negotiis
        - Doctrina de ambitu vitæ.
      - Doctrina de imperio, sive Rep.
        - Doctrina de proferendis finibus imperii.
        - Doctrina de justitia universali.

CAPUT PRIMUM.

Partitia universalis doctrinæ humanæ in historiam, poësim, philosophiam, secundum tres intellectus, facultates, memoriam, phantasiam, rationem; quodque eadem partitio competat etiam theologicis.

Partitio doctrinæ humanæ ea est verissima, quæ sumitur ex triplici facultate animæ rationalis, quæ doctrinæ sedes est: historia ad memoriam refertur, poësis ad phantasiam, philosophia ad rationem. Per poësim autem, hoc loco intelligimus non aliud, quam historiam confictam, sive fabulas. Carmen enim styli quidem character est, atque ad artificia orationis pertinet; de quo suo loco.

Historia proprie individuorum est, quæ circumscribuntur loco et tempore. Etsi enim historia naturalis circa species versari videatur; tamen hoc fit ob promiscuam rerum naturalium (in plurimis) sub una specie, similitudinem; ut, si unam noris, omnes noris. Sicubi autem individua reperiantur, quæ aut unica sunt in sua specie, veluti sol et luna; aut a specie insigniter deflectunt, ut monstra; non minus recte constituitur narratio de illis in historia naturali, quam de hominibus singularibus in historia civili. Hæc autem omnia ad memoriam spectant.

Poësis, eo sensu, quo dictum est, etiam individuorum est; confictorum ad similitudinem illorum, quæ in historia vera memorantur: ita tamen ut modum sæpius excedat, et quæ in rerum natura nunquam conventura, aut eventura fuissent, ad libitum componat et introducat; quemadmodum facit et pictoria. Quod quidam phantasiæ opus est.

Philosophia individua dimittit; neque impressiones primas individuorum, sed notiones ab illis abstractas complectitur; atque in iis componendis et dividendis, ex lege naturæ et rerum ipsarum evidentia, versatur. Atque hoc prorsus officium est atque opificium rationis.

Hæc autem ita se habere, si quis intellectualium origines petat, facile cernet. Individua sola sensum percellunt, qui intellectus janua est. Individuorum eorum imagines, sive impressiones a sensu exceptæ, figuntur in memoria, atque abeunt in eam, a principio tanquam integræ, eodem, quo occurrunt, modo: eas postea recolit, et ruminat anima humana; quas deinceps aut simpliciter recenset; aut lusu quodam imitatur; aut componendo et dividendo digerit. Itaque liquido constat, ex tribus his fontibus, memoriæ, phantasiæ, et rationis, esse tres illas emanationes, historiæ, poëseos, et philosophiæ: nec alias aut plures esse posse. Etenim historiam et experientiam pro eadem re habemus; quemadmodum etiam philosophiam et scientias.

Neque alia censemus ad theologica partitione opus esse. Differunt certe informationes oraculi et sensus, et re et modo insinuandi: sed spiritus humanus unus est, ejusque areulæ et cellæ eædem. Fit itaque, ac si diversi liquores, atque per diversa infundibula, in unum atque idem vas recipiantur. Quare et theologia, aut ex historia sacra constat; aut ex parabolis, quæ instar diviæ poëseos sunt; aut ex præceptis et dogmatibus, tanquam perenni quadam philosophia. Quod enim ad eam partem pertinet, quæ redundare videtur, prophetiam videlicet, ea historiæ genus est: quandoquidem historia divina, ea polleat supra humanam prærogativa, ut narratio factum præcedere, non minus quam sequi possit.

CAPUT SECUNDUM.

Partitia historiæ in naturalem et civilem, ecclesiasticam et literariam sub civili comprehensa. Partitio historiæ naturalis in historiam generationum, præter-generationum, et artium.

Historia aut naturalis est, aut civilis: in naturali, naturæ res gestæ et facinora memorantur; in civili, hominum. Elucent proculdubio divina in utrisque, sed magis in civilibus, ut etiam propriam historiæ speciem constituant, quam sacram aut ecclesiasticam appellare consuevimus. Nobis vero etiam ea videtur literarum et artium dignitas, ut iis historia propria seorsum attribui debeat: quam sub historia civili (quemadmodum et ecclesiasticam) comprehendi intelligimus.

Partitionem historiæ naturalis moliemur ex statu et conditione ipsius naturæ, quæ in triplici statu posita invenitur, et tanquam regimen trium subit. Aut enim libera est natura, et cursu consueto se explicans, ut in cœlis, animalibus, plantis, et universo naturæ apparatu; aut a pravitatibus et insolentiis materiæ contumacis, et ab impedimentorum violentia, de statu suo detruditur, ut in monstris; aut denique ab arte et opera humana constringitur, et fingitur, et tanquam novatur, ut in artificialibus. Sic itaque partitio historiæ naturalis in historiam generationum, præter-generationum, et artium; quam postremam, etiam mechanicam, et experimentalem appellare consuevimus. Harum prima libertatem naturæ tractat: secunda errores: tertia vincula. Libenter autem historiam artium, ut historiæ naturalis specimen, constituimus: quia inveteravit prorsus opinio, ac si aliud quippiam esset ars a natura, artificialia a naturalibus: unde illud malum, quod plerique historiæ naturalis scriptores, perfunctos se putent, si historiam animalium, aut plantarum, aut mineralium confecerint, omissis artium mechanicarum experimentis. Sed et illabitur etiam animis hominum aliud subtilius malum; nempe, ut ars censeatur solummodo tanquam additamentum quoddam naturæ, cujus scilicet ea sit vis, ut naturam (sane) vel inchoatam perficere, vel in deterius vergentem emendare, vel impeditam liberare; minime vero penitus vertere, transmutare, aut in imia coacutere possit: quod ipsum rebus humanis præproperam desperationem intulit. At contra, illud animis hominum penitus insidere debuerat; artificialia a naturalibus, non forma aut essentia, sed efficiente solummodo differre; homini quippe in naturam, nullius rei potestatem esse, præterquam motus, ut scilicet corpora naturalia aut admoveat, aut amoveat. Ubi igitur datur admotio corporum naturalium, aut remotio, conjungendo (ut vocant) activa passivis, omnia potest homo; ubi non datur, nihil: neque interest, si res ponantur in ordine ad aliquem effectum, utrum hoc fiat per hominem, vel absque homine. Anrum aliquando excoquitur igne,

aliquando in arcnulis purum invenitur, ministrante sibi ipsi natura: iris similiter fit ex nube roscida in sublimi; fit etiam per aspersionem aquæ, hic apud nos. Itaque natura omnia regit: subordinantur autem illa tria; cursus naturæ; exspatiatio naturæ; et ars, sive additus rebus homo: idcoque in historia naturali, tria illa comprehendi par est; quod etiam C. Plinius magna ex parte fecit: qui historiam naturalem solus pro dignitate complexus est; sed complexam, minime ut decuit, imo potius indignis modis tractavit.

Harum prima habetur mediocriter exculta: sequentes duæ ita tenuiter et inutiliter tractantur, ut in desideratorum classe reponendæ sint. Neque enim reperias satis instructam et locupletem collectionem operum naturæ eorum, quæ a cursu ordinario generationum, productionum, et motuum aberrarunt, et deflexerunt: sive sint illi fœtus certarum regionum aut locorum singulares; sive temporum eventus insoliti; sive casuum (ut ait ille) ingenia; sive proprietatum abditarum effectus; sive monadica naturæ in sua specie. Non negaverim, inveniri libros nimio plures, fabulosis experimentis, commentitiis secretis, et frivolis imposturis, ad voluptatem et novitatem, refertos; cæterum narrationem gravem et severam, de heteroclitis et mirabilibus naturæ, diligenter examinatam ac fideliter descriptam, non, inquam, invenio: præsertim cum debita rejectione, et publica tanquam proscriptione mendaciorum et fabularum, quæ invaluerunt. Nam ut res se nunc habet, si forte mendacia aliqua circa res naturales obtinuerint, et celebrata sint (sive quod tantum possit reverentia antiquitatis, sive quod illa denuo examini subjicere sit molestum, sive quod mirifica scilicet ornamenta putantur orationis, propter similitudines et comparationes) nunquam postea exterminantur aut retractantur.

Finis hujusmodi operis, quod exemplo suo decoravit Aristoteles, nil minus est, quam ut curiosis et inanibus ingeniis gratificetur, sicut faciunt mirabilarii et prodigiastri: verum duas ob causas, utramque seriam et gravem; unam, ut axiomatum corrigatur iniquitas; quæ plerunque in exemplis tritis et vulgatis fundamentum habent; alteram, quod a miraculis naturæ ad miracula artis expeditus sit transitus et pervius. Neque enim huic rei plus inest negotii, præterquam ut naturæ vestigia persequaris sagaciter, cum ipsa sponte aberret; ut hoc pacto postea cum tibi libuerit, eam eodem loci deducere, et compellere possis. Neque vero præceperim, ut ex historia ista mirabilium, superstitiosæ narrationes, de maleficiis, fascinationibus, incantationibus, somniis, divinationibus, et similibus, prorsus excludantur, ubi de facto et re gesta liquido constet. Nondum enim innotuit, quibus in rebus et quousque, effectus superstitioni attributi ex causis naturalibus participent. Ideoque licet hujusmodi artium usum et praxin merito damnandum censeamus, tamen a speculatione et consideratione ipsarum (si strenue excutiantur) notitiam haud inutilem consequemur, non solum ad delicta in hoc genere rerum rite dijudicanda; sed etiam ad naturæ secreta ulterius rimanda. Neque certe hæsitandum de ingressu et penetratione, intra hujusmodi antra et recessus, si quis sibi unicam veritatis inquisitionem proponat; quod et majestas tua exemplo proprio confirmavit. Tu enim, duobus illis clarissimis et acutissimis religionis ac naturalis philosophiæ oculis, tales umbras prudenter ac perspicaciter perlustrasti; ut te soli simillimum probaveris, qui polluta loca ingreditur, nec tamen inquinatur. Cæterum illud monuerim, narrationes istas cum rebus superstitiosis conjunctas, seorsum componi, neque cum puris et sinceris naturalibus commisceri oportere. Quod vero ad narrationes attinet, circa prodigia et miracula religionum; illa certe aut non utique vera sunt, aut nulla ex parte naturalia; ideoque ad historiam naturalem non pertinent.

Quantum ad historiam naturæ subactæ, et factitiæ, quam mechanicam appellare solemus; invenio sane collectiones quasdam de agricultura, etiam de artibus compluribus mechanicis: sed, quod pessimum est in hoc genere, semper negliguntur et rejiciuntur experimenta, in artibus singulis familiaria et vulgata; quæ tamen ad interpretationem naturæ æque aut plus faciunt, quam minus trita. Nam labes quædam literis aspergi videatur, si forte viri docti se submittant inquisitioni, aut observationi rerum mechanicarum, nisi fuerit earum, quæ pro arcanis artis, aut pro rebus admodum raris, aut subtilibus reputentur: quod tam inanis ac superciliosæ arrogantiæ vitium merito irrisit Plato, quando Hippiam sophistam jactabundum inducit cum Socrate disputantem, sincero et solido veritatis investigatore: qui, cum de pulchritudine sermo institutus esset, pro vago suo et solnto disputandi more, primum intulit exemplum virginis pulchræ, dein equæ pulchræ, postremo ollæ fictilis pulchræ et affabre factæ: hoc ultimo exemplo Hippias commotus, dixit: "Stomacharer certe, nisi humanitatis ratio me eo adigeret, cum quoquam disputare, qui exempla tam vilia et sordida allegaret." Cui Socrates, "Te quidem ita decet, cum tam nitidis sis amictus vestibus et pulchris calceis:" et alia per ironiam. Enimvero, illud pro certo asseri possit, grandia exempla haud optimam, aut tutissimam afferre informationem. Id quod exprimitur non insulse in pervulgata illa fabula de philosopho: qui cum stellas sublatis oculis intueretur, incidit in aquam: nam si oculos demisisset, stellas illico in aqua videre potuisset; verum suspiciens in cœlum, aquam in stellis videre non potuit. Eodem modo sæpe accidit, ut res minutæ et humiles plus conferant ad notitiam grandium, quam grandes ad notitiam minutarum. Bene siquidem notavit Aristoteles, "cujusque rei naturam in portionibus ejus minimis optime cerni." Quam ob causam, reipublicæ naturam perscrutatur primo in familia, et in simplicissimis combinationibus societatis (mariti scilicet et uxoris, parentum et liberorum, domini et servi) quæ in quolibet tuguriolo occurrunt. Simili plane ratione natura hujusce magnæ civitatis (universitatis nimirum rerum) ejusque dispensatio, in prima quaque symbolizatione et minimis rerum portionibus investiganda est: uti fieri videmus, quod secretum illud naturæ (habitum pro maximo) de verticitate ferri, tactu magnetis exciti, ad polos, se conspiciendum præbuit, non in vectibus ferreis, sed in acubus.

Ego vero, si quod sit mei pondus judicii, sic plane

statuo; historiæ mechanicæ usum erga philosophiam naturalem, esse maxime radicalem et fundamentalem. Talem intelligo philosophiam naturalem, quæ non abeat in fumos speculationum subtilium, aut sublimium: sed quæ efficaciter operetur, ad sublevanda vitæ humanæ incommoda. Neque enim ad præsens tantum juvabit, meetendo et transferendo observationes unius artis in usum aliarum, et inde novas commoditates elieiendo; quod necesse est fieri, cum experimenta diversarum artium in unius hominis observationem et considerationem venient; sed porro ad causas rerum indagandas, et artium axiomata deducenda, lucidiorum faeem aeeendet, quam haetenus unquam affulsit. Quemadmodum enim ingenium alicujus haud bene noris, aut probaris, nisi eum irritaveris; neque Proteus se in varias rerum faeies vertere solitus est, nisi manieis arete comprehensus; similiter etiam natura arte irritata et vexata se clarius prodit, quam eum sibi libera permittitur.

Antequam vero hoc membrum historiæ naturalis (quod mechanicum atque experimentale vocamus) dimittamus, illud adjiciendum: corpus talis historiæ, non solum ex artibus ipsis mechanicis, verum et ex operativa parte scientiarum liberalium, ac simul ex praeticis compluribus (quæ in artem non coaluerunt) confiei debere, ut nihil utile prætermittatur, quod ad informandum intelleetum juvat. Atque hæc est historiæ naturalis partitio prima.

CAPUT TERTIUM.

Partitio historiæ naturalis secunda, ex usu ut fine suo, in narrativam et inductivam: quodque finis nobilissimus historiæ naturalis sit, ut ministret ut in ordine sit ad condendam philosophiam: quem finem intuetur inductiva. Partitio historiæ generationum in historiam cœlestium: historiam meteorum: historiam globi terræ et maris: historiam massarum sive collegiorum majorum: et historiam specierum sive collegiorum minorum.

Historia naturalis, ut subjecto triplex (quemadmodum diximus) ita usu duplex est: adhibetur enim, aut propter cognitionem rerum ipsarum, quæ historiæ mandantur; aut tanquam materia prima philosophiæ. Atque prior illa, quæ aut narrationum jucunditate deleetat, aut experimentorum usu juvat, atque hujusmodi voluptatis aut fructus gratia quæsita est, longe inferioris notæ censenda, præ ea, quæ inductionis veræ et legitimæ sylva sit atque supellex, et primam philosophiæ mammam præbeat. Rursus itaque partiemur historiam naturalem in narrativam et inductivam: hanc autem posteriorem inter desiderata ponimus. Neque vero aciem mentis alicujus perstringant, aut magna antiquorum nomina, aut magna recentium volumina. Satis enim scimus, haberi historiam naturalem mole amplam, varietate gratam, diligentia sæpius curiosam. Attamen si quis ex ea fabulas, et antiquitatem, et auctorum citationes, et inanes controversias, philologiam denique et ornamenta eximat (quæ ad convivales sermones hominumque doctorum noctes, potius quam ad instituendam philosophiam sint accommodata) ad nil magni res recidet. Longe autem profecto abest ab ea historia, quam animo metimur. Primo enim desiderantur duæ illæ historiæ naturalis partes (de quibus modo diximus) præter-generationum, et artium, in quibus nos plurimum ponimus: deinde in tertia illa (quæ reliqua est) parte generali, nimirum de generationibus, uni tantum ex quinque partibus ejus satisfaeit. Siquidem historiæ generationum constituuntur partes subordinatæ quinque: prima cœlestium, quæ phænomena ipsa sineera complectitur, atque separata a dogmatibus: secunda meteororum (annumerando etiam cometas) et regionum, quas vocant, aëris: neque enim de cometis, meteoris ignitis, ventis, pluviis, tempestatibus, et reliquis, invenitur aliqua historia, quæ ullius sit pretii. Tertia terræ et maris (quatenus sunt universi partes integrales) montium, fluminum, æstuum, arenarum, sylvarum, insularum, denique figuræ ipsius continentium prout exporriguntur; in his omnibus, potius naturalia inquirendo et observando, quam cosmographica. Quarta, de massis materiæ communibus, quas collegia majora vocamus (vulgo elementa dicuntur); neque enim de igne, aëre, aqua, terra, eorumque naturis, motibus, operibus, impressionibus, narrationes reperiuntur, quæ corpus aliquod historiæ justum constituant. Quinta et ultima, de collectionibus materiæ exquisitis, quæ a nobis collegia minora, vulgo species appellantur. In hac autem postrema sola, industria scriptorum enituit; ita tamen ut potius luxuriata sit in superfluis (iconibus animalium, aut plantarum, et simillbus intumescens) quam solidis et diligentibus observationibus ditata, quæ ubique in historia naturali subneeti debeant. Atque, ut verbo dicam, omnis, quam habemus, naturalis historia, tam inquisitione sua, quam congerie, nullo modo in ordine ad eum, quem diximus, finem (condendæ scilicet philosophiæ) aptata est. Quare historiam inductivam desiderari pronunciamus. Atque de naturali historia hactenus.

CAPUT QUARTUM.

Partitio historiæ civilis, in ecclesiasticam, literariam, et (quæ generis nomen retinet) civilem: quodque historia literaria desideretur: ejus conficiendæ præcepta.

Historiam civilem in tres species recte dividi putamus: primo sacram, sive ecclesiasticam: deinde eam, quæ generis nomen retinet, civilem: postremo literarum et artium. Ordiemur autem ab ea specie, quam postremo posuimus, quia reliquæ duæ habentur; illam autem inter desiderata referre visum est. Ea est historia literarum: atque certe historia mundi si hac parte fuerit destituta, non absimilis censeri possit statuæ Polyphemi, eruto oculo; cum ea pars imaginis desit, quæ ingenium et indolem personæ maxime referat. Hanc licet desiderari statuamus, nos nihilominus minime fugit, in scientiis particularibus jurisconsultorum, mathematicorum, rhetorum, philosophorum, haberi levem aliquam mentionem, aut narrationes quasdam jejunas, de sectis, scholis,

libris, auctoribus, et successionibus hujusmodi scientiarum: inveniri etiam de rerum et artium inventoribus tractatus aliquos exiles et infructuosos; attamen justam atque universalem literarum historiam nullam adhuc editam asserimus. Ejus itaque et argumentum, et conficiendi modum, et usum proponemus.

Argumentum non aliud est, quam ut ex omni memoria repetatur, quæ doctrinæ et artes, quibus mundi ætatibus et regionibus floruerint. Earum antiquitates, progressus, etiam peregrationes per diversas orbis partes (migrant enim scientiæ, non secus ac populi) rursus declinationes, obliviones, instaurationes commemorentur. Observetur simul per singulas artes inventionis occasio et origo; tradendi mos et disciplina; colendi et exercendi ratio et instituta. Adjiciantur etiam sectæ et controversiæ maxime celebres, quæ homines doctos tenuerunt; calumniæ, quibus patuerunt; laudes et honores, quibus decoratæ sunt. Notentur auctores præcipui, libri præstantiores, scholæ, successiones, academiæ, societates, collegia, ordines; denique omnia, quæ ad statum literarum spectant. Ante omnia etiam id agi volumus (quod civilis historiæ decus est, et quasi anima) ut eum eventis causæ copulentur: videlicet ut memorentur naturæ regionum ac populorum; indolesque apta et habilis, aut inepta et inhabilis ad disciplinas diversas; accidentia temporum, quæ scientiis adversa fuerint aut propitia; zeli et mixturæ religionum; malitiæ et favores legum; virtutes denique insignes et efficacia quorundam virorum, erga literas promovendas, et similia. At hæc omnia ita tractari præcipimus, ut non, criticorum more, in laude et censura tempus teratur; sed plane historiee res ipsæ narrentur, judicium parcius interponatur.

De modo autem hujusmodi historiæ conficiendæ, illud imprimis monemus; ut materia et copia ejus, non tantum ab historiis et criticis petatur, verum etiam ut per singulas annorum centurias, aut etiam minora intervalla, seriatim (ab ultima antiquitate facto principio) libri præcipui, qui per ea temporis spatia conscripti sunt, in consilium adhibeantur; ut ex eorum non perlectione (id enim infinitum quiddam esset) sed degustatione, et observatione argumenti, styli, methodi, genius illius temporis literarius, veluti incantatione quadam, a mortuis evocetur.

Quod ad usum attinet, hæc eo spectant; non ut honor literarum et pompa per tot circumfusas imagines celebretur; nec quia pro flagrantissimo, quo literas prosequimur, amore, omnia, quæ ad earum statum quoquo modo pertinent, usque ad curiositatem inquirere, et scire, et conservare avemus; sed præcipue ob causam magis seriam et gravem: ea est (ut verbo dicamus) quoniam per talem, qualem descripsimus, narrationem, ad virorum doctorum, in doctrinæ usu et administratione, prudentiam et solertiam, maximam accessionem fieri posse existimamus; et rerum intellectualium non minus quam civilium motus et perturbationes, vitiaque et virtutes, notari posse; et regimen inde optimum educi et institui. Neque enim B. Augustini, aut B. Ambrosii opera, ad prudentiam episcopi, aut theologi, tantum facere posse putamus, quantum si ecclesiastica historia diligentur inspiciatur et revolvatur: quod et viris doctis ex historia literarum obventurum non dubitamus. Casum enim omnino recipit, et temeritati exponitur, quod exemplis et memoria rerum non fulcitur. Atque de historia literaria hæc dicta sint.

CAPUT QUINTUM.

De dignitate et difficultate historiæ civilis.

Sequitur historia civilis specialis, cujus dignitas atque auctoritas inter scripta humana eminet. Hujus enim fidei, exempla majorum, vicissitudines rerum, fundamenta prudentiæ civilis, hominum denique nomen et fama, commissa sunt. Ad dignitatem rei accedit difficultas non minor. Etenim animum in scribendo ad præterita retrahere, et veluti antiquum facere; temporum motus, personarum characteres, consiliorum trepidationes, actionum (tanquam aquarum) ductus, prætextuum interiora, imperii arcana, cum diligentia scrutari, eum fide et libertate referre, denique verborum lumine sub oculos ponere, magni utique laboris est et judicii; præsertim eum antiquiora quæque ineerta, recentiora periculo obnoxia reperiantur. Quamobrem et plurima historiam istam civilem circumstant vitia: dum plerique narrationes quasdam inopes et plebeias, et plane dedecora historiarum conscribant; alii particulares relationes et commentariolos, opera festinata, et textu inæquali consarciant; alii capita tantum rerum gestarum percurrant; alii contra, minima quæque et ad summas actionum nihil facientia persequantur; nonnulli, nimia erga ingenia propria indulgentia, plurima audacter confingant: ast alii, non tam ingeniorum suorum, quam affectuum, imaginem rebus imprimant et addant, partium suarum memores, rerum parum fideles testes: quidam politica, in quibus sibi complacent, ubique inculcent, et diverticula ad ostentationem quærendo, narrationem rerum nimis leviter interrumpant: alii in orationum et concionum, aut etiam actorum ipsorum prolixitate, parum cum judicio nimii sint; adeo ut satis constet, non inveniri inter scripta hominum rarius quicquam, quam historiam legitimam et omnibus numeris suis absolutam. Verum nos in præsenti partitionem doctrinarum instituimus, ut omissa, non censuram, ut vitiosa notentur. Nunc partitiones historiæ civilis persequemur, easque diversorum generum: minus enim implicabuntur species, si partitiones diversæ proponantur, quam si una partitio curiose per membra deducatur.

CAPUT SEXTUM.

Partitio prima historiæ civilis, in memorias, antiquitates, et historiam justam.

Historia civilis tripartita est, tribus picturarum aut imaginum generibus non absimilis. Videmus enim ex picturis, et imaginibus, alias imperfectas, ut quibus ultima manus non accesserit; alias perfectas; alias vero vetustate mutilatas et deformatas. Historiam similiter civilem (quæ imago rerum et temporum quædam est) in tres species, illis pictu-

rarum congruas, partiemur; memorias scilicet, historiam justam, et antiquitates. Memoriæ sunt historia inchoata, aut prima et rudia historiæ lineamenta; antiquitates vero historia deformata sunt, sive reliquiæ historiæ, quæ casu e naufragio temporum ereptæ sunt.

Memoriæ, sive præparationes ad historiam, duplicis generis sunt; quorum alterum commentarios, alterum registra vocare placet. Commentarii nudam actionum et eventuum seriem ac connexionem proponunt, prætermissis causis rerum et prætextibus, initiis quoque earundem et occasionibus, consiliis itidem, et orationibus, et reliquo actionum apparatu. Talis enim est propria commentariorum natura; licet Cæsari, per modestiam quandam cum magnanimitate conjunctam, præstantissimæ, inter eas, quæ extant historiæ, commentariorum nomen indere placuerit. At registra duplicis naturæ sunt: complectuntur enim aut titulos rerum et personarum, in serie temporum; quales dicuntur fasti et chronologiæ: aut actorum solennitates; cujus generis sunt, principum edicta, senatuum decreta, judiciorum processus, orationes publice habitæ, epistolæ publice missæ, et similia, absque narrationis contextu sive filo continuo.

Antiquitates, seu historiarum reliquiæ, sunt (uti jam diximus) tanquam tabulæ naufragii, cum, deficiente et fere submersa rerum memoria, nihilominus homines industrii et sagaces, pertinaci quadam et scrupulosa diligentia, ex genealogiis, fastis, titulis, monumentis, numismatibus, nominibus propriis et stylis, verborum etymologiis, proverbiis, traditionibus, archivis, et instrumentis, tam publicis quam privatis, historiarum fragmentis, librorum neutiquam historicorum locis dispersis; ex his, inquam, omnibus, vel aliquibus, nonnulla a temporis diluvio eripiunt, et conservant. Res sane operosa, sed mortalibus grata, et cum reverentia quadam conjuncta; ac digna certe, quæ, deletis fabulosis nationum originibus, in locum hujusmodi commentitiorum substituatur; sed tamen eo minus habens auctoritatis, quia paucorum licentiæ subjicitur, quod paucis curæ est.

In his imperfectæ historiæ generibus, defectum aliquem non puto designandum, cum sint tanquam imperfecte mixta, ut defectus hujusmodi sit ex ipsa earum natura. Ad epitomas quod attinet (historiarum certe teredines et tineas) eas exulare volumus; quod etiam cum plurimis, qui maxime sani fuerunt judicii, facimus; utpote quæ complura nobilissimarum historiarum corpora exederint et corroderint, atque in fæces inutiles demum redegerint.

CAPUT SEPTIMUM.

Partitio historiæ justæ in chronica, vitas, et relationes; earumque partium explicatio.

At historia justa trium est generum, pro ratione objecti, quod sibi proponit repræsentandum. Aut enim portionem aliquam temporis repræsentat; aut personam singularem memoria dignam; aut actionem aliquam sive rem gestam ex illustrioribus. Primum chronica sive annales appellamus; secundum vitas; tertiam relationes. Inter quæ, chronica celebritate et nomine excellere videntur; vitæ autem fructu et exemplis; relationes rursus sinceritate et veritate. Chronica namque, amplitudinem actionum publicarum, et personarum facies externas, et in publicum versas, proponunt: minora autem, quæ tum ad res, tum ad personas pertinent, omittunt, et silentio involvunt. Cum vero id artificii divini sit proprium, ut maxima e minimis suspendat, fit sæpenumero, ut hujusmodi historia, majora tantum persecuta, negotiorum pompam potius et solennia, quam eorum veros fomites et texturas subtiliores ostendat; quinetiam, etsi consilia ipsa addat, atque immisceat, tamen graditate gaudens, plus gravitatis atque prudentiæ, quam revera habent, humanis actionibus aspergat; ut satira aliqua possit esse verior humanæ vitæ tabula, quam nonnulla ex ejusmodi historiis. Contra, vitæ, si diligenter et cum judicio perscribantur (neque enim de elogiis et hujusmodi commemorationibus jejunis loquimur) quandoquidem personam singularem pro subjecto sibi proponant, in qua necesse est actiones, non minus leves quam graves, parvas quam grandes, privatas quam publicas, componi et commisceri; sane magis vivas et fidas rerum narrationes, et quas ad exemplum tutius et felicius transferre possis, exhibent. At relationes actionum speciales (quales sunt bellum Peloponnesi, expeditio Cyri, conjuratio Catilinæ, et similia) omnino puriore et magis sincero veritatis candore vestiri par est, quam historias justas temporum; quia argumentum in iis deligi et sumi potest habile et definitum; atque ejusmodi, ut de eo notitia et certitudo bona, et plena informatio haberi possit; cum contra historia temporis (præsertim quæ ætate scriptoris multo antiquior sit) necessario in memoria rerum sæpius fatiscat, et veluti spatia vacua contineat; quæ ingenio et conjectura occupari, et suppleri satis licenter consueverunt. Hoc tamen ipsum, quod de relationum sinceritate dicimus, cum exceptione intelligendum est; nam fatendum certe est (cum humana omnia ex parte laborent, et commoda cum incommodis fere perpetuo conjuncta sint) hujusmodi relationes, præsertim si sub ipsa rerum gestarum tempora edantur (cum sæpius vel ad gratiam, vel ad invidiam scribantur) omnium narrationum merito maxime suspectas esse. Sed rursus huic incommodo etiam illud connascitur remedium; quod illæ ipsæ relationes, cum non ex una parte solummodo, sed pro factionibus et partium studiis, ex utraque parte semper fere edantur, viam hoc pacto quandam veritati, tanquam inter extrema, aperiunt et muniunt; atque postquam contentiones animorum deferbuerint, historico bono et prudenti non pessima historiæ perfectioris materia et sementis sunt.

Quod vero ad ea, quæ in his tribus historiæ generibus desiderari videantur; dubium certe non est, quin plurimæ historiæ particulares (de talibus loquimur, quæ esse possint) alicujus dignitatis, aut etiam mediocritatis, cum maximo regnorum et rerumpublicarum, quibus debentur, honoris et nominis detrimento, hucusque prætermissæ sint, quas notare perlongum esset. Cæterum exterarum nationum historias exterorum curæ relinquens (ne forte sim in aliena republica curiosus) non possum non apud majestatem tuam conqueri, de historiæ Angliæ, quæ

nunc habetur, vilitate et indignitate, quatenus ad corpus ejus integrum; nec non historiæ Scotiæ iniquitate et obliquitate, quatenus ad auctorem ejus recentissimum et uberrimum: reputans mecum, honorificum admodum majestati tuæ futurum, atque opus posteritati gratissimum; si quemadmodum insula hæc Magnæ Britanniæ, se nunc in unam monarchiam coalitam, ad sequentes ætates transmittit; ita in una historia descripta, a præteritis seculis repeteretur; eodem modo, quo historiam decem tribuum regni Israëlis, et duarum tribuum regni Judæ, tanquam gemellam, sacra pagina deducit. Quod si moles hujusmodi historiæ, magna certe et ardua, quo minus exacte et pro dignitate perscribatur, videatur obfutura, ecce tibi memorabilem multo angustioris temporis periodum, quatenus ad historiam Angliæ, nimirum ab unione rosarum ad unionem regnorum; spatium temporis, quod, meo quidem judicio, majorem recipit eventuum, quæ raro se ostendunt, varietatem, quam in pari successionum numero uspiam in regno hæreditario deprehendere licet. Incipit enim ab adeptione coronæ mixta, partim armis, partim jure: ingressum siquidem ferrum aperuit, stabilimentum attulerunt nuptiæ: secuta igitur sunt tempora illis initiis consentanea; simillima fluctibus, post magnam tempestatem, tumores et agitationes suas, sed absque aliqua immani procella, retinentibus, atque gubernatoris prudentia, qui unus inter antecessores reges consilio enituit, superatis. Ordine proximus succedit rex, cujus actiones, licet magis impetu quam consilio administratæ, non leve tamen in rebus Europæ momentum attulerint, eas subinde librando et inclinando, prout ipsæ propendebant: quo etiam regnante, cœpit fieri ingens illa status ecclesiastici mutatio, qualis raro admodum prodit in theatrum. Secutus est rex minor. Dein tentamentum tyrannidis, licet illud brevissimum fuerit, instar febris ephemeræ. Dein regnum fœminæ extero regi nuptæ. Rursus regnum fœminæ solitariæ et cœlibis. Hæc omnia demum excepit eventus iste faustus et glorioſus; nimirum hujusce insulæ Britanniæ, a toto orbe divisæ, in se unio; per quam vetus illud oraculum, Æneæ redditum, quod requiem ei præmonstrabat,

Antiquam exquirite matrem;

supra nobilissimas gentes Angliæ et Scotiæ in nomine illo Britanniæ, antiquæ suæ matris, jam convenientes, adimpletum sit; in pignus et tesseram metæ, et exitus errorum et peregrinationis jam reperti. Ita ut, quemadmodum corpora ponderosa jactata, antequam ponant et consistant, trepidationes quasdam experiuntur; eodem modo probabile videatur, divina providentia factum esse, ut monarchia ista, priusquam in tua majestate, regiaque tua sobole (in qua spero eam in perpetuum fore stabilitam) consisteret et confirmata esset, has tam varias mutationes et vicissitudines, tanquam præludia stabilitatis suæ, subiret.

De vitis cogitantem subit quædam admiratio, tempora ista nostra haud nosse bona sua; cum tam rara sit commemoratio et conscriptio vitarum, eorum, qui nostro seculo claruerunt. Etsi enim reges, et qui absolutum principatum obtineant, pauci esse possint; principes etiam in republica libera (tot rebuspublicis in monarchiam conversis) haud multi; uteunque tamen non defuerunt viri egregii (licet sub regibus) qui meliora merentur, quam incertam et vagam memoriæ suæ famam, aut elogia arida et jejuna. Etenim hac ex parte, iaventum cujusdam ex poëtis recentioribus, quo antiquam fabulam locupletavit, non inelegans est. Fingit ille, in extremitate fili Parcarum, numisma quoddam, seu monile pendere, in quo defuncti nomen impressum sit: Tempus autem cultrum Atropi præstolari, et, statim abscisso filo, numismata eripere, eaque asportata paulo post in fluvium Lethes ex gremio suo projicere: circa fluvium autem, magnam avium vim volitare, quæ numismata arripiunt, ac postquam in rostris ipsarum paulisper eadem circumtulerint, paulo post per incuriam in fluvium decidere permittunt: inter eas vero, cygnos reperiri nonnullos, qui si numisma aliquod cum nomine prehenderint, illico ad templum quoddam illud deferre solebant, immortalitati consecratum. Hujusmodi itaque cygni nostris temporibus fere defecerunt. Quamvis autem plurimi hominum, curis et studiis suis nimio plus quam corporibus mortales, nominis sui memoriam, veluti fumum aut auram despiciant,

"—— animi ail magnæ laudis egentes;"

quorum scilicet philosophia et severitas ab ea radice pullulat, "Non prius laudes contempsimus, quam laudanda facere desivimus;" id tamen apud nos Salomonis judicio non præjudicabit, "Memoria justi cum laudibus, at impiorum nomen putrescet:" altera perpetuo floret, alterum aut in oblivionem protinus abit, aut in odorem tetrum computrescit. Ac propterea in eo ipso stylo, vel loquendi formula, quæ recte admodum recepta est, ut defunctis tribuatur ("felicis memoriæ, piæ memoriæ, bonæ memoriæ") agnoscere videmur illud, quod Cicero (mutuatus id ipsum a Demosthene) protulit, "Bonam famam propriam esse possessionem defunctorum:" quam quidem possessionem non possum non notare nostro ævo incultam ut plurimum, et neglectam jacere.

Quantum ad relationes, optandum esset prorsus, ut multo major circa eas adhiberetur diligentia; quippe vix incidit aliqua actio paulo illustrior, cui non intersit calamus aliquis ex melioribus, qui eam excipere, et describere possit. Quoniam autem is perpaucorum hominum esse debet, qui historiam justam pro dignitate conscribat (ut ex paucitate historicorum vel mediocrium satis liquet) idcirco si actiones particulares, sub tempus ipsum, quo geruntur, tolerabili aliquo scripto memoriæ mandarentur, sperandum esset, exorituros quandoque, qui historiam justam, ope et auxilio illarum relationum, conscribere possent. Illæ enim instar seminarii esse possint, unde, cum usus foret, hortus amplus et magnificus consereretur.

CAPUT OCTAVUM.

Partitio historiæ temporum in historiam universalem et particularem, et utriusque commoda et incommoda.

Historia temporum aut universalis est aut particularis; hæc alicujus regni, vel reipublicæ, vel na-

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tionis res gestas complectitur; illa universi orbis. Neque enim defuerunt, qui historiam mundi etiam ab origine scripsisse videri volunt; farraginem rerum et compendia narrationum pro historia exhibentes: Alii sui temporis res, per orbem terrarum memorabiles, tanquam justa historia complecti posse confisi sunt, conatu profecto magnanimo, atque fructu haud exiguo. Neque enim res humanæ ita imperiis aut regionibus divisæ sunt, ut non habeant multa connexa: quare juvat certe, facta, alicui seculo aut ætati destinata, veluti una tabula contenta et descripta intueri. Fit etiam ut plurima scripta non cotemnenda (qualia sunt eæ, de quibus antea locuti sumus, relationes) alias forte peritura, neque prelum sæpius passura, ant saltem capita ipsorum, in hujusmodi historiam generalem recipiantur, atque hoc pacto figantur et conserventur. Veruntamen, si quis rem rectius perpendat, animadvertet, tam severas esse historiæ justæ leges, ut eas in tanta argumenti vastitate exercere vix liceat; adeo ut minuatur potius historiæ majestas molis granditate, quam amplificetur. Fict enim ut, qui tam varia undequaque persequitur, is, informationis religione paulatim remissa, et diligentia sua, quæ ad tot res extenditur, in singulis elanguescente, auras populares et rumores captet; et ex relationibus non admodum authenticis, aut hujusmodi aliqua levidensi materia, historiam conficiat. Quinetiam necesse ei erit (ne opus in immensum excrescat) plurima relatu digna consulto prætermittere, atque ad epitomarum rationes sæpius delabi. Incumbit etiam aliud periculum non parvum, atque utilitati illi historiæ universalis ex diamctro oppositum: quemadmodum enim universalis historia, narrationes aliquas, quæ alias forte fuissent peritura, conservat; ita contra sæpenumero narrationes alias satis fructuosas, quæ aliter victuræ fuissent, propter grata mortalibus rerum compendia, perimit.

CAPUT NONUM.

Partitio alia historiæ temporum, in annales et acta diurna.

Etiam historia temporum recte dividitur in annales et diaria: quæ divisio, licet ex periodis temporum nomina sumat, tamen ad delectum rerum etiam pertinet. Recte enim Cornelius Tacitus, cum in mentionem magnificentiæ quarundam structurarum incidit, statim subdit: "Ex dignitate populi Romani repertum esse, res illustres annalibus, talia diurnis urbis actis mandare:" applicando annalibus res, quæ ad statum reipublicæ pertinent; acta vero et accidentia leviora, diariis. Meo utique judicio, valere conveniret disciplinam quandam heraldicam, in disponendis non minus librorum, quam personarum, dignitatibus. Sicut enim nihil rebus civilibus magis detrahit, quam ordinum et graduum confusio; ita etiam auctoritati historiæ gravis haud parum derogat, si admisceantur politicis res levioris momenti; quales sunt pompæ, et solennitates, et spectacula, et hujusmodi. Atque sane optandum esset, ut illa ipsa distinctio in consuetudinem veniret. Nostris vero temporibus, diaria in navigationibus tantum et expeditionibus bellicis, in usu sunt. Apud antiquos certe regum honori dabatur, ut acta palatii sui in diaria referrentur; quod videmus factum fuisse sub Ahasuero Persarum rege; qui cum noctem ageret insomnem, diaria proposcit; ubi conjurationem eunuchorum recognovit: at in Alexandri Magni diariis, tam pusilla continebantur, ut etiam, si forte ad mensam dormiret, in acta reponeretur. Neque enim sicut annales tantum gravia, ita diaria tantum levia complexa sunt; sed omnia promiscue et cursim diariis excipiebantur, seu majoris seu minoris momenti.

CAPUT DECIMUM.

Partitio secunda historiæ civilis, in meram et mixtam.

Postrema vero partitio historiæ civilis ea sit, ut dividatur in meram, aut mixtam. Mixturæ celebres duæ. Altera ex scientia civili: altera præcipue ex naturali. Introductum est enim ab aliquibus genus scribendi, ut quis narrationes aliquas, non in serie historiæ continuatas, sed ex delectu auctoris excerptas conscribat: deinde easdem recolat, et tanquam ruminet; et sumpta ab ipsis occasione, de rebus politicis disserat. Quod genus historiæ ruminatæ nos sane magnopere probamus, modo hujusmodi scriptor hoc agat, et hoc se agere confiteatur. Historiam autem justam ex professo scribenti, politica ubique ingerere, atque per illa, filum historiæ interrumpere, intempestivum quiddam et molestum est. Licet enim historia quæque prudentior, politicis præceptis et monitis veluti impregnata sit, tamen scriptor ipse sibi obstetricari non debet.

Mixta etiam est historia cosmographica, idque multipliciter: habet enim ex historia naturali, regiones ipsas, atque earum situs et fructus; ex historia civili, urbes, imperia, mores: ex mathematicis, climata et configurationes cœli, quibus tractus mundi subjacent. In quo genere historiæ, sive scientiæ, est, quod seculo nostro gratulemur. Orbis enim terrarum factus est, hac nostra ætate, mirum in modum fenestratus atque patens. Antiqui certe zonas et antipodas noverant,

> "Nosque ubi primus equis oriens afflavit anhelis
> Illic sera rubens accendit lumina vesper:"

idque ipsum magis per demonstrationes, quam per peregrinationes. Verum ut carina aliqua parva cœlum ipsum æmularetur; atque universum globum terrestrem, magis etiam obliquo et flexuoso, quam cœlestia solent, itinere circumiverit, ea est nostri seculi prærogativa: ita ut præsens ætas jure in symbolo suo usurpare possit, non tantum illud Plus ultra, ubi antiqui usurpabant Non ultra; atque insuper illud Imitabile fulmen, ubi antiqui, Non imitabile fulmen;

> "Demens qui nimbos et non imitabile fulmen:"

verum et illud, quod omnem admirationem superat, Imitabile cœlum, propter navigationes nostras, quibus circa universum terræ ambitum, cœlestium cor-

porum more, volvi et circumagi sæpius concessum fuit.

Atque hæc præclara, in re nautica atque orbe perlustrando, felicitas, de ulterioribus etiam progressibus et augmentis scientiarum, spem magnam facere possit; præsertim dum divino videatur consilio esse decretum, ut hæc duo cœva sint: sic enim Daniel propheta, de novissimis temporibus verba faciens, prædicit, " Plurimi pertransibunt, et augebitur scientia;" quasi pertransitus sive perlustratio mundi atque multiplex augmentum scientiarum eidem seculo destinarentur: sicut magna ex parte jam completum videmus; quandoquidem tempora nostra, duabus illis prioribus doctrinarum periodis, aut revolutionibus (alteri apud Græcos, alteri apud Romanos) eruditione non multum cedant, eas vero in aliquibus longe superent.

CAPUT UNDECIMUM.

Partitio historiæ ecclesiasticæ in ecclesiasticam specialem, historiam ad prophetias, et historiam Nemeseos.

HISTORIA ecclesiastica in genere, easdem fere cum historia civili partitiones subit. Sunt enim chronica ecclesiastica, sunt vitæ patrum, sunt relationes de synodis, et reliquis ad Ecclesiam spectantibus. Proprio vero nomine, recte dividitur in historiam ecclesiasticam (generis nomine servato) et historiam ad prophetias, et historiam Nemeseos sive providentiæ. Prima Ecclesiæ militantis tempora et statum diversum memorat; sive illa fluctuet, ut arca in diluvio; sive itineretur, ut arca in eremo; sive consistat, ut arca in templo: hoc est, statum Ecclesiæ in persecutione, in motu, et in pace. In hac parte, defectum aliquem non invenio, quin supersunt in illa complura potius quam desunt: illud sane optarem, ut massæ tam prægrandi virtus quoque et sinceritas narrationum responderent.

Secunda pars, quæ est historia ad prophetias, ex duobus relativis constat, prophetia ipsa, et ejus adimpletione. Quapropter tale esse debet hujus operis institutum, ut cum singulis ex Scripturis prophetiis eventuum veritas conjungatur; idque per omnes mundi ætates, tum ad confirmationem fidei, tum ad instituendam disciplinam quandam et peritiam in interpretatione prophetiarum, quæ adhuc restant complendæ. Attamen in hac re, admittenda est illa latitudo, quæ divinis vaticiniis propria est et familiaris; ut adimpletiones eorum fiant et continenter et punctualiter: referunt enim auctoris sui naturam; " Cui unus dies tanquam mille anni, et mille anni tanquam unus dies:" atque licet plenitudo et fastigium complementi eorum, plerunque alicui certæ ætati vel etiam certo momento destinetur; attamen habent interim gradus nonnullos et scalas complementi, per diversas mundi ætates. Hoc opus desiderari statuo, verum tale est, ut magna cum sapientia, sobrietate, et reverentia tractandum sit, aut omnino dimittendum.

Tertia pars, quæ historia Nemeseos est, sane in calamos nonnullorum piorum virorum incidit, sed non sine partium studio: occupata est autem in observanda divina illa convenientia, quæ nonnunquam intercedit inter Dei voluntatem revelatam et secretam. Quamvis enim tam obscura sint consilia et judicia Dei, ut homini animali sint penitus inscrutabilia, quinctiam sæpius eorum oculis, qui prospiciunt e tabernaculo, se subducant; divinæ tamen sapientiæ visum, aliquando per vices, ad suorum confirmationem, et confusionem eorum, qui tanquam sine Deo sunt in mundo, ea quasi majoribus characteribus descripta, sic proponere conspicienda, uti (sicut loquitur propheta) " quivis etiam in cursu ea perlegere possit;" hoc est, ut homines mere sensuales et voluptarii, qui judicia illa divina prætervehi festinant, neque cogitationes suas in ea unquam defigunt, tamen, quamvis propere currant, et aliud agant, ipsa agnoscere cogantur. Talia sunt vindictæ seræ et inopinæ; salutes subito affulgentes et insperatæ; consilia divina per ambages rerum tortuosas, et stupendas spiras, tandem se manifesto expedientia, et similia: quæ valent, non solum ad consolandos animos fidelium, sed ad percellendas et convincendas conscientias improborum.

CAPUT DUODECIMUM.

De appendicibus historiæ, quæ circa verba hominum (quemadmodum historia ipsa circa facta) versantur; partitio earum in orationes, epistolas, et apophthegmata.

AT non factorum solummodo humani generis, verum etiam dictorum memoria servari debet. Neque tamen dubium, quin dicta illa quandoque historiæ ipsi inserantur, quatenus ad res gestas perspicue et graviter narrandas faciant et deserviant. Sed dicta sive verba humana proprie custodiunt libri orationum, epistolarum, et apophthegmatum. Atque orationes sane virorum prudentium, de negotiis et causis gravibus et arduis habitæ, tum ad rerum ipsarum notitiam, tum ad eloquentiam multum valent. Sed majora adhuc præstantur auxilia ad instruendam prudentiam civilem ab epistolis, quæ a viris magnis de negotiis seriis missæ sunt; etenim ex verbis hominum nil sanius aut præstantius, quam hujusmodi epistolæ. Habent enim plus nativi sensus, quam orationes; plus etiam maturitatis, quam colloquia subita. Eædem quando continuantur secundum seriem temporum (ut fit in illis, quæ a legatis, præfectis provinciarum, et aliis imperii ministris, ad reges, vel senatus, vel alios superiores suos mittuntur; aut vicissim ab imperantibus ad ministros) sunt certe ad historiam, præ omnibus, pretiosissima supellex. Neque apophthegmata ipsa ad delectationem et ornatum tantum prosunt, sed ad res gerendas etiam et usus civiles. Sunt enim (ut aiebat ille) veluti " secures" aut " mucrones verborum," qui rerum et negotiorum nodos acumine quodam secant et penetrant: occasiones autem redeunt in orbem, et quod olim erat commodum, rursus adhiberi et prodesse potest; sive quis ea tanquam sua proferat, sive tanquam vetera. Neque certe de utilitate ejus rei ad civilia dubitari potest, quam Cæsar dictator opera

sun honestavit; cujus liber utinam extaret, eum ea, quæ usquam habentur in hoc genere, nobis parum cum delectu congesta videantur.

Atque hæc dicta sint de historia, ea scilicet parte doctrinæ, quæ respondet uni ex cellis sive domiciliis intellectus, quæ est memoria.

CAPUT DECIMUM TERTIUM.

De secundo membro principali doctrinæ, nempe poësi. Partitio poëseos in narrativam, dramaticam, et parabolicam. Exempla parabolicæ tria proponuntur.

Jam ad poësin veniamus. Poësis est genus doctrinæ, verbis plerunque adstrictum, rebus solutum et licentiosum; itaque, ut initio diximus, ad phantasiam refertur, quæ iniqua et illicita prorsus rerum conjugia et divortia comminisci et machinari solet. Poësis autem (ut supra innuimus) dupliei accipitur sensu, quatenus ad verba, vel quatenus ad res respiciat. Priore sensu, sermonis quidem eharaeter est: carmen enim styli genus, et elocutionis formula quædam; nec ad res pertinet: nam et vera narratio carmine, et fictn oratione soluta conscribi potest. Posteriore vero sensu, constituimus eam, ab initio, doctrinæ membrum principale, eamque juxta historiam collocavimus, cum nihil aliud sit, qoam historiæ imitatio ad placitum. Nos igitur In partitionibus nostris, veras doctrinarum venas indagantes et persequentes; neque consuetudini et divisionibus receptis (in multis) eedentes; satiras, et elegias, et epigrammata, et odas, et hujusmodi, ab instituto sermone removemus; atque ad philologiam et artes orationis rejicimus. Sub nomine autem poëseos, de historia ad placitum eonficta, tantummodo traetamus.

Partitio poëseos verissima, atque maxime ex proprietate, præter illas divisiones, quæ sunt ei eum historia communes (sunt enim ficta chronica, vitæ fictæ, fictæ etiam relationes) ea est, ut sit sut narrativa; aut dramatica; aut parabolica. Narrativa prorsus historiam imitatur, ut fere fallat, nisi quod res extollat sæpius suprn fidem. Dramatiea est veluti historia spectabilis; nam constituit imaginem rerum tanquam præsentium; historia autem tanquam præteritarum. Parabolicn vero est historia cum typo, quæ intellectualia deducit ad sensum.

Atque de poësi narrativa, sive eam heroicam appellare placet, (modo hoc intelligas de materin non de versu,) ea a fundamento prorsus nobili excitata videtur, quod ad dignitatem humanæ naturæ imprimis spectat. Cum enim mundus sensibilis sit nnima rationali dignitate inferior, videtur poësis hæc humanæ naturæ largiri, quæ historin denegat; ntque animo umbris rerum nteuuque satisfacere, cum solida haberi non possint. Si quis enim rem acutius introspiciat, firmum ex poësi sumitur argumentum, magnitudinem rerum magis illustrem, ordinem magis perfeetum, et varietatem magis pulchram, animæ humanæ eomplaeere, quam in natura ipsa, post lapsum, reperire ullo modo possit. Quapropter eum rea gestæ, et eventus, qoi veræ historiæ subjiciuntur, non sint ejus amplitudinis, in qua aoima humana sibi satisfaciat, præsto est poësis, quæ facta magis heroica eonfingat: eum historia vera sueeesus rerum, minime pro meritis virtutum et scelerum, narret; eorrigit eam poësis, et exitus et fortunas, secundum merita et ex lege Nemeseos, exhibet: cum historia vera, obvin rerum satietate et aimilitudine, animæ humanæ fastldio sit; reficit eam poësia, inexpectata, et varia, et vieissitudinum plena eaneus. Adeo ut poësis ista, non solum ad deleetationem, sed etiam ad nnimi magnitudinem, et ad mores conferat. Quare et merito etiam divinitntia eujuapiam particeps videri possit; quia animum erigit, et in sublime rapit; rerum simulaera ad animi desideria aceommodando, non animum rebus (quod rntio facit, et historia) submittendo. Atque hia quidem illecebris et congruitate, qua animum humanum demuleet, addito etinm consortio musices, unde suavius insinuari possit, aditum sibi patefecit, ut honori fuerit etium seculis plane rudibus et apud nationes barbaras, eum aliæ doctriuæ prorsus exclusæ easent.

Dramatica autem poësis, quæ thentrum habet pro mundo, usu eximin est, si sana foret. Non parva enim esse posset theatri, et disciplinn, et eorruptela: atque eorruptelarum in hoc genere, abunde est; disciplina plane nostris temporibus est neglecta. Attamen licet in rebuspublicis modernis habeatur pro re ludiera actio theatralis, nisi forte nimium trahat e satira, et mordeat; tamen apud antiquos curæ fuit, ut animos hominum ad virtutem institueret. Quinetiam viris prudentibus et magnis philosophia veluti animorum plectrum qooddam eensebatur. Atque sane veriasimum est, et tanquam secretum quoddam naturæ, hominom animos, eum congregati sint, magis quam eum soli sint, nffectibus et impressionibus patere.

At poësis parabolica, inter reliquas eminet, et tanquam res sacra videtor, et augusta; cum præsertim religio ipsa ejus opern plerunque utatur, et per eam commercin divinorum cum humania exerceat. Attamen et hæc quoque, ingeniorum circa allegorias levitate et indulgentia, eontaminata invenitur. Est autem usus nmbigui, atqoe ad eontraria adhibetur. Faeit enim ad involucrum; facit etiam ad illustrationem. In hoc, docendi quædam ratio; in illo, oceultandi artificium quæri videtur. Hæc autem docendi ratio, quæ faeit ad illostrationem, antiquis seculis plurimum adhibebatur. Cum enim rationis humanæ inventa, et conclusiones (etiam eæ, quæ nunc tritæ et vulgatæ sunt) tunc temporis novæ et insuetæ essent, vix illam subtilitatem eapiebant ingenia humana, nisi propius eæ ad sensum, per hujusmodi simulaera et exempla, deducerentur. Quare omnia apud illos, fabularum omnigenarum, et parabolarum, et ænigmatum, et similitudinum, plenn fuerunt. Hinc tesseræ Pythagoræ, ænigmata Sphingis, Æsopi fabulæ, et similin. Quinetiam apophthegmata veterum sapientum fere per similitudines rem demonstrabant. Hinc Menenius Agrippa apud Romanos (gentem eo seculo miuime literatam) seditionem fabula repressit. Denique ut hieroglyphica literis, ita parabolæ argumentis erant antiquiorea. Atqne hodie etiam et semper eximius est, et foit, parabolarum vigor, eum nee argumenta tam perspieua, nec vera exempla tam apta esse possint.

Alter est usus poëseos parabolicæ, priori quasi contrarius, qui facit (ut diximus) ad involucrum; earum nempe rerum, quarum dignitas tanquam velo quodam discreta esse mereatur: hoc est, cum occulta et mysteria religionis, politicæ, et philosophiæ, fabulis et parabolis vestiuntur. Utrum vero fabulis veteribus poëtarum subsit aliquis sensus mysticus, dubitationem nonnullam habet; atque ipsi certe fatemur nos in eam sententiam propendere, ut non paucis antiquorum poëtarum fabulis mysterium infusum fuisse putemus. Neque nos movet, quod ista pueris fere et grammaticis relinquantur, et vilescant, ut de illis contemptim sententiam ferannus: quin contra, cum plane constet scripta illa, quæ fabulas istas recitant, ex scriptis hominum, post literas sacras, esse antiquissima, et longe his antiquiores fabulas ipsas (etenim tanquam prius creditæ et receptæ, non tanquam excogitatæ ab illis scriptoribus referuntur) videntur esse instar tenuis cujusdam auræ, quæ ex traditionibus nationum magis antiquarum in Græcorum fistulas inciderunt. Cum vero, quæ circa harum parabolarum interpretationem adhuc tentata sint, per homines scilicet imperitos, nec ultra locos communes doctos, nobis nullo modo satisfaciant; philosophiam secundum parabolas antiquas inter desiderata referre visum est. Ejus autem operis exemplum unum aut alterum subjungemus. Non quod res sit fortasse tanti, sed ut institutum nostrum servemus. Id hujusmodi est, ut de operibus illis, quæ inter desiderata ponimus (si quid sit paulo obscurius) perpetuo aut præcepta ad opus illud instruendum, aut exempla proponamus: ne quis forte existimet levem aliquam tantum notionem de illis meutem nostram perstrinxisse, nosque regiones, sicut augures, animo tantum metiri, neque eas ingrediendi vias nosse. Aliam aliquam partem in poësi desiderari non invenimus; quin potius cum planta sit poësis, quæ veluti a terra luxuriante, absque certo semine, germinaverit, supra cæteras doctrinas excrevit, et diffusa est. Verum jam exempla proponemus, tria tantum numero, unum e naturalibus, e politicis unum, atque unum denique e moralibus.

EXEMPLUM PRIMUM PHILOSOPHIÆ, SECUNDUM PARABOLAS ANTIQUAS, IN NATURALIBUS.

De universo, secundum fabulam Panis.

Antiqui generationem Panis in dubio relinquunt; alii enim eum a Mercurio genitum: alii longe alium generationis modum ei tribuunt. Aiunt enim procos universos cum Penelope rem habuisse, ex quo promiscuo concubitu Pana communem filium ortum esse. Neque prætermittenda est tertia illa generationis explicatio: quidam enim prodiderunt, eum Jovis et Hybreos (id est, contumeliæ) filium fuisse. Uteunque orto, Parcæ illi sorores fuisse perhibentur: quæ in specu subterraneo habitabant: Pan autem morabatur sub dio. Effigies Panis talis ab antiquitate describitur; cornutus, cornibus in acutum surgentibus, et usque ad cœlum fastigiatis; corpore toto hispidus et villosus; barba imprimis promissa; figura biformis, humana quoad superiora, sed semifera et in capræ pedes desinente. Gestabat autem insignia potestatis; sinistra fistulam ex septem calamis compactam, dextra pedum sive baculum, superius curvum et inflexum. Induebatur chlamyde ex pelle pardalis. Potestates ei et munera ejusmodi attribuuntur, ut sit deus venatorum, etiam pastorum, et in universum ruricolarum; præses item montium. Erat etiam proximus a Mercurio nuncius deorum. Habebatur etiam dux et imperator Nympharum, quæ circa eum perpetuo choreas ducere, et tripudiare solebant; comitabantur et Satyri, et his seniores Sileni. Habebat insuper potestatem terrores immittendi, præsertim inanes et superstitiosos, qui et Panici vocati sunt. Res gestæ autem ejus non multæ memorantur: illud præcipuum, quod Cupidinem provocavit ad luctam, a quo etiam in certamine victus est. Etiam Typhonem gigantem retibus implicavit et cohibuit: atque narrant insuper, cum Ceres mœsta, et ob raptam Proserpinam indignata, se abscondisset; atque dii omnes ad eam investigandam magnopere incubuissent, et se per varias vias dispertiti essent; Pani solummodo ex felicitate quadam contigisse, ut inter venandum eam inveniret et indicaret. Ausus est quoque cum Apolline de victoria musices decertare, atque etiam Mida judice prælatus est; ob quod judicium Midas asininas aures tulit, sed clam et secreto. Amores Panis nulli referuntur, aut saltem admodum rari; quod mirum, inter turbam deorum prorsus tam profuse amatoriam, videri possit. Illud solummodo ei datur, quod Echo adamaret, quæ etiam uxor ejus est habita; atque unam præterea nympham, Syringam nomine; in quam propter iram et vindictam Cupidinis (quem ad luctam provocare non reveritus esset) incensus est. Etiam Lunam quondam in altas sylvas sevocasse dicitur. Neque etiam prolem ullam suscepit, (quod similiter mirum est, cum dii, præsertim masculi, prolifici admodum essent,) nisi quod ei attribuatur tanquam filia, muliercula quædam ancilla, Iambe nomine; quæ ridiculis narratiunculis oblectare hospites solebat, ejusque proles ex conjuge Echo esse a nonnullis existimabatur. Parabola talis esse videtur.

Pan (ut et nomen ipsum etiam sonat) universum sive universitatem rerum repræsentat et proponit. De hujus origine duplex omninó sententia est, atque adeo esse potest. Aut enim a Mercurio est, verbo scilicet divino (quod et sacræ literæ extra controversiam ponunt; et philosophi ipsi, qui magis divini habiti sunt, viderunt) aut ex confusis rerum seminibus. Etenim quidam e philosophis semina rerum etiam substantia infinita statuerunt; unde opinio de homoiomeriis fluxit, quam Anaxagoras aut invenit, aut celebravit. Nonnulli vero magis acute et sobrie censebant ad varietatem rerum expediendam sufficere, si semina, substantia eadem, figuris varia, sed certis et definitis, essent; et reliqua in positura et complexu seminum ad invicem ponebant: ex quo fonte opinio de atomis emanavit; ad quam Democritus se applicavit, cum Leucippus ejus auctor fuisset. At alii, licet unum rerum principium asserrent (aquam Thales, aërem Anaximenes, ignem Heraclitus) tamen illud ipsum principium actu unicum, potentia varium et dispensabile posuerunt, ut in quo rerum omnium semina laterent. Qui vero

materiam omnino spoliatam et informem, et ad formas indifferentem introduxerunt (ut Plato et Aristoteles) multo etiam propius et propensius ad parabolæ figuram accesserunt. Posuerunt enim materiam tanquam publicam meretricem, formas vero tanquam procos: adeo ut omnes de rerum principiis opiniones hue redeant, et ad illam distributionem reducantur, ut mundus sit, vel a Mercurio, vel a Penelope et procis omnibus. Tertia autem generatio Panis ejusmodi est ut videantur Græci aliquid de Hebræis mysteriis, vel per Ægyptios internuncios, vel utcunque, insudivisse. Pertinet enim ad statum mundi, non in meris natalibus suis, sed post lapsum Adami, morti et corruptioni expositum et obnoxium factum. Ille enim status, Dei, et peccati (sive contumeliæ) proles fuit, ac manet. Fuit enim peccatum Adami ex genere contumeliæ, cum Deo similis fieri vellet. Itaque triplex ista narratio de generatione Panis, etiam vera videri possit, si rite et rebus et temporibus distinguatur. Nam iste Pan (qualem eum nunc intuemur et complectimur) ex verbo divino, mediante confusa materia (quæ tamen ipsa Dei opus erat) et subintrante prævaricatione, et per eam corruptione, ortum habet.

Naturæ rerum, fata rerum, sorores vere perhibentur et ponuntur. Fata enim vocantur ortus rerum, et durationes, et interitus; atque depressiones etiam, et eminentiæ, et labores, et felicitates, denique conditiones quæcunque individui: quæ tamen nisi in individuo nobili (utpote homine, aut urbe, aut gente) fere non agnoscuntur. Atqui ad istas conditiones tam varias deducit individua illa singula Pan, rerum scilicet natura; ut tanquam eadem sit res (quatenus ad individua) catena naturæ et filum Parcarum. Ad hæc insuper finxerunt antiqui Panem semper sub dio morari, sed Parcas sub specu ingenti subterraneo habitare, atque inde maxima pernicitate ad homines subito advolare: quia natura, atque universi facies, spectabilis est et aperta; at fata individuorum occulta et rapida. Quod si fatum accipiatur largius, ut omnem prorsus eventum, non illustriores tantum denotet, tamen utique et eo sensu optime convenit cum universitate rerum; cum ex ordine naturæ, nil tam exiguum sit, quod sine causa fiat; et rursus nil tam magnum, ut non aliunde pendeat; adeo ut fabrica ipsa naturæ suo sinu et gremio omnem eventum et minimum et maximum complectatur; et suo tempore certa lege prodat. Itaque nil mirum si Parcæ ut Panis sorores introductæ sint, et certe legitimæ. Nam Fortuna vulgi filia est, et levioribus tantum philosophis placuit. Sane Epicurus, non solum profanum instituere sermonem, sed etiam desipere videtur, cum dixit, "Præstare credere fabulam Deorum, quam fatum asserere," ne si quicquam in universo esse possit instar insulæ, quod a rerum nexu separetur. Verum Epicurus philosophiam suam naturalem (ut ex ipsius verbis patet) morali suæ accommodans et subjiciens, nullam opinionem admittere voluit, quæ animum premeret et morderet, atque euthymiam illam (quam a Democrito acceperat) lacesseret aut turbaret. Itaque suavitati cogitationum indulgens, potius quam veritatis patiens, plane jugum jactavit, et tam fati necessitatem, quam deorum metum, repudiavit. Verum de Parcarum germanitate cum Pane satis dictum est.

Corona autem mundo attribuuntur, ab imo latiora, ad verticem acuta. Omnis enim rerum natura instar pyramidis acuta est. Quippe individua, in quibus basis naturæ exporrigitur, infinita sunt; ea colliguntur in species, et ipsas multipliees; species rursus insurgunt in genera, atque hæc quoque ascendendo in magis generalia contrahuntur; ut tandem natura tanquam in unum coire videatur; quod figura illa pyramidali cornuum Panis significatur. Mirum vero minime est Panis cornua etiam cœlum ferire; cum excelsa naturæ, sive ideæ universales, ad divina quodammodo pertingant. Itaque et catena illa Homeri decantata (causarum scilicet naturalium) ad pedem solii Jovis fixa memorabatur; neque quisquam (ut videre est) metaphysicam, et quæ in natura æterna et immobilia sunt, tractavit, atque animum a fluxu rerum paulisper abduxit, qui non simul in theologiam naturalem inciderit; adeo paratus et propinquus est transitus a vertice illa pyramidis ad divina.

Corpus autem naturæ elegantissime et verissime depingitur hirsutum, propter rerum radios. Radii enim sunt tanquam naturæ crines, sive villi: atque omnia fere vel magis vel minus radiosa sunt; quod in facultate visus manifestissimum est; nec minus in omni virtute magnetica, et operatione ad distans. Quicquid enim operatur ad distans, id etiam radios emittere recte dici potest. Sed maxime omnium prominet barba Panis, quia radii corporum cœlestium, et præcipue solis, maxime ex longinquo operantur et penetrant; adeo ut superiora terræ, atque etiam interiora, ad distantiam nonnullam plane verterint et subegerint, et spiritu impleverint. Elegantior autem est figura de barba Panis, quod et sol ipse, quando, parte superiore ejus nube obvoluta, radii inferius erumpunt, ad aspectum barbatus cernitur.

Etiam corpus naturæ rectissime describitur biforme, ob differentiam corporum superiorum et inferiorum. Illa enim ob pulchritudinem, et motus æqualitatem, et constantiam, necnon imperium in terram et terrestria, merito sub humana figura representantur: cum natura humana ordinis et dominationis particeps sit: hæc autem ob perturbationem et motus incompositos, et quod a cœlestibus in plurimis regantur, bruti animalis figura contenta esse possunt. Porro eadem corporis biformis descriptio pertinet ad participationem specierum: nulla enim naturæ species, simplex videri potest, sed tanquam ex duobus participans, et concreta. Habet enim homo nonnihil ex bruto, brutum nonnihil ex planta, planta nonnihil ex corpore inanimato, omniaque revera biformia sunt, et ex specie superiore, et inferiore compacta. Acutissima autem est allegoria de pedibus capræ, propter ascensionem corporum terrestrium versus regiones aëris et cœli, ubi etiam pensilia fiunt, et inde dejiciuntur magis quam descendunt. Capra enim animal scansorium est, eaque e rupibus pendere, atque in præcipitiis hærere amat; similiter etiam res, licet inferiori globo destinatæ, faciunt, idque miris modis, ut in nubibus et meteoris manifestissimum est. Imo non sine causa Gilbertus, qui de magnete laboriosissime, et secundum viam experimentalem conscripsit, dubitationem

injecit; num non forte corpora gravia, post longam a terra distantiam, motum versus inferiora paulatim exuant?

Insignia autem in manibus Panis ponuntur duplicia; alterum harmoniæ, alterum imperii. Fistula enim ex septem calamis concentum rerum et harmoniam, sive concordiam cum discordia mixtam (quæ ex septem stellarum errantium motu conficitur) evidenter ostendit. Neque enim alii, præterquam septem planetarum, inveniuntur in cœlo errores, sive expatiationes manifestæ, quæ cum æqualitate stellarum fixarum, earumque perpetua et invariabili ad se invicem distantia compositæ et temperatæ, tum constantiam specierum, tum fluxum individuorum tueri et ciere possint. Si qui vero sint planetæ minores, qui non conspiciuntur; si qua etiam mutatio in cœlo major (ut in cometis nonnullis superlunaribus) videntur illa profecto tanquam fistulæ, aut omnino mutæ, aut ad tempus tantum strepere; utpote quarum operationes vel ad nos non perlabantur, vel harmoniam illam septem fistularum Panis non diu interturbent. Pedum autem illud imperii nobilis translatio est, propter vias naturæ partim rectas, partim obliquas. Atque baculum illum, sive virga, versus superiorem partem præcipue curva est, quia omnia providentiæ divinæ opera in mundo fere per ambages et circuitus fiunt, ut aliud agi videri possit, aliud revera agatur; sicut Josephi venditio in Ægyptum, et similia. Quinetiam in regimine humano omni prudentiore, qui ad gubernacula sedent, populo convenientia, per prætextus et vias obliquas, felicius quæ volunt, quam ex directo superinducunt et insinuant. Etiam (quod mirum fortasse videri possit) in rebus mere naturalibus citius naturam fallas, quam premas: adeo, quæ ex directo fiunt, inepta sunt, et se ipsa impediunt; cum contra, via obliqua et insinuans molliter fluat, et effectum sortiatur. Vestis Panis et amiculum ingeniose admodum ex pelle pardalis fuisse fingitur, propter maculas ubique sparsas. Cœlum enim stellis, maria insulis, tellus floribus consperguntur; atque etiam res particulares fere variegatæ esse solent circa superficiem, quæ veluti rei chlamys est.

Officium autem Panis nulla alia re, tam ad vivum proponi atque explicari potuerit, quam quod Deus venatorum sit. Omnis enim naturalis actio, atque adeo motus et progressio, nihil aliud quam venatio est. Nam et scientiæ et artes opera sua venantur; et consilia humana fines suos; atque res naturales omnes vel alimenta sua, ut conserventur, vel voluptates et delicias suas, ut perficiantur, venantur (omnis siquidem venatio est aut prædæ, aut animi causa) idque modis peritis et sagacibus:

> "Torva leæna lupum sequitur, lupus ipse capellam,
> Florentem cytisum sequitur lasciva capella."

Etiam ruricolarum in genere Pan Deus est, quia hujusmodi homines magis secundum naturam vivunt; cum in urbibus et aulis natura a cultu nimio corrumpatur, ut illud poëtæ amatorium, verum, propter hujusmodi delicias, etiam de natura sit:

> "—— Pars minima est ipsa puella sui."

Montium autem imprimis præses dicitur Pan, quia in montibus et locis editis natura rerum panditur, atque oculis et contemplationi magis subjicitur. Quod alter a Mercurio deorum nuncius sit Pan, ea allegoria plane divina est, cum proxime post verbum Dei, ipsa mundi imago, divinæ potentiæ et sapientiæ præconium sit. Quod et poëta divinus cecinit, "Cœli enarrant gloriam Dei, atque opera manuum ejus indicat firmamentum."

At Pana oblectant Nymphæ, animæ scilicet: delicieæ enim mundi animæ viventium sunt. Hic autem merito illarum imperator, cum illæ naturam quæque suam tanquam ducem sequantur, et circa eum infinita cum varietate, veluti singulæ more patrio, saltent, et choreas ducant, motu neutiquam cessante. Itaque acute quidam ex recentioribus, facultates animæ omnes ad motum reduxit, et nonnullorum ex antiquis fastidium et præcipitationem notavit, qui memoriam et phantasiam, et rationem defixis præpropere oculis intuentes et contemplantes, vim cogitativam, quæ primas tenet, prætermiserunt. Nam et qui meminit, aut etiam reminiscitur, cogitat; et qui imaginatur, similiter cogitat; et qui ratiocinatur, utique cogitat: denique anima, sive a sensu monita, sive sibi permissa, sive in functionibus intellectus, sive affectuum et voluntatis, ad modulationem cogitationum saltat; quæ est illa Nympharum tripudiatio. Una vero perpetuo comitantur Satyri et Sileni, senectus scilicet et juventus. Omnium enim rerum est ætas quædam hilaris et motu gaudens, atque rursus ætas tarda et bibula: utriusque autem ætatis studia vere contemplanti fortasse ridicula et deformia videantur, instar Satyri alicujus aut Sileni. De Panicis autem terroribus prudentissima doctrina proponitur. Natura enim rerum omnibus viventibus indidit metum et formidinem, vitæ atque essentiæ suæ conservatricem, ac mala ingruentia vitantem et depellentem. Verumtamen eadem natura modum tenera nescie est, sed timoribus salutaribus semper vanos et inanes admiscet; adeo ut omnia (si intus conspici darentur) Panicis terroribus plenissima sint; præsertim humana; et maxime omnium apud vulgum, qui superstitione (quæ vere nihil aliud quam Panicus terror est) in immensum laborat et agitatur, præcipue temporibus duris, et trepidis, et adversis. Neque superstitio ista tantummodo in vulgo regnat, sed ab opinionibus vulgi etiam in sapientiores aliquando insilit, ut divine Epicurus (si cætera, quæ de diis disserut, ad hanc normam fuissent) loeutus sit: "Non deos vulgi negare profanum, sed vulgi opiniones diis applicare profanum."

Quod vero attinet ad audaeiam Panis et pugnam per provocationem cum Cupidine; id eo speetat, quia materia non caret inclinatione et appetitu ad dissolutionem mundi et recidivationem in illud chaos antiquum, nisi prævalida rerum concordia (per Amorem sive Cupidinem significata) malitia et impetus ejus cohiberetur, et in ordinem compelleretur. Itaque bono admodum hominum et rerum fato fit (vel potius immensa bonitate divina) ut Pan illud certamen adversum experiatur, et vietus abscedat. Eodem prorsus pertinet et illud de Typhone in retibus implicato, quia utcunque aliquando vasti et insoliti rerum tumores sint (id quod Typhon sonat) sive in-

tumescant maria, sive intumescant nubes, sive intumescat terra, sive alia, tamen rerum natura hujusmodi corporum exuberantias atque insolentias reti inextricabili implicat et coërcet, et veluti catena adamantina devincit.

Quod autem inventio Cereris huic deo attribuatur, idque inter venationem; reliquis autem diis negetur, licet sedulo quærentibus, et illud ipsum agentibus; monitum habet verum admodum et prudens: hoc scilicet, ne rerum utilium ad vitam et cultum inventio, a philosophiis abstractis, tanquam diis majoribus, expectetur, licet totis viribus in illud ipsum incumbant; sed tantummodo a Pane, id est, experientia sagaci, et rerum mundi notitia universali; quæ etiam casu quodam, ac veluti inter venandum, in hujusmodi inventa incidere solet. Utilissima enim quæque inventa experientiæ debentur, et veluti donaria quædam fuere casu in homines sparsa.

Illud autem musicos certamen, ejusque eventus, salutarem exhibet doctrinam, atque cam, quæ rationi, et judicio humano gestienti, et se efferenti, sobrietatis vincula injicere possit. Duplex enim videtur esse harmonia, et quasi musica, altera sapientiæ divinæ, altera rationis humanæ. Judicio enim humano, ac veluti auribus mortalium, administratio mundi et rerum, et judicia divina secretiora, sonant aliquid durum et quasi absonum: quæ inscitia, licet asininis auribus merito insigniatur, tamen et illæ ipsæ aures secreto non palam gestantur. Neque enim hujusce rei deformitas a vulgo conspicitur aut notatur.

Postremo minime mirum est, si nulli amores Pani attribuantur, præter conjugium Echus; mundus enim se ipso, atque in se rebus omnibus fruitur: qui amat autem frui vult, neque in copia desiderio locus est. Itaque mundi amores esse nulli possunt, nec potiundi cupido (cum se ipse contentus sit) nisi fortasse amores sermonis. Ii sunt Nympha Echo, res non solida sed vocalis; aut si accuratiores sint, Syringa, quando scilicet verba et voces, numeris quibusdam sive poëticis, sive oratoriis, et tanquam modulamine, reguntur. Inter sermones autem sive voces excellenter ad conjugium mundi sumitur sola Echo: ea enim demum vera est philosophia, quæ mundi ipsius voces fidelissime reddit, et veluti dictante mundo conscripta est; et nihil aliud est, quam ejusdem simulacrum et reflexio; neque addit quicquam de proprio, sed tantum iterat et resonat. Nam quod Lunam Pan in altas sylvas aliquando sevocasset, videtur pertinere ad congressum sensus cum rebus cœlestibus sive divinis. Nam alia est Endymionis ratio, alia Panis: Ad Endymionem dormientem sponte se demittit Luna; siquidem ad intellectum sopitum, et a sensibus abductum, quandoque sponte influunt divina: quod si accersantur, et vocentur a sensu, tanquam a Pane, tum vero non aliud lumen præbent quam illud,

> "Quale sub incertam lunam sub luce maligna
> Est iter in sylvis."

Ad mundi etiam sufficientiam et perfectionem pertinet, quod prolem non edat. Ille enim per partes generat; per totum quomodo generare possit, cum corpus extra ipsum non sit? nam de muliercula illa Iambe, filia Panis putativa, est sane ea adjectio quædam ad fabulam sapientissima. Per illam enim repræsentantur ea, quæ perpetuis temporibus passim vagantur, atque omnia implent, vaniloquæ de rerum natura doctrinæ, re ipsa infructuosæ, genere quasi subditiciæ, garrulitate vero interdum jucundæ, interdum molestæ et importunæ.

EXEMPLUM ALTERIUS PHILOSOPHIÆ, SECUNDUM PARABOLAS ANTIQUAS, IN POLITICIS.

De bello, secundum fabulam Persei.

Perseus, orientalis cum fuisset, missus traditur a Pallade, ad obtruncandam Medusam, quæ populis plurimis ad occidentem, in extremis Iberiæ partibus, maximæ calamitati fuit. Monstrum enim hoc, alias crudele et immane, etiam aspectu tam dirum atque horrendum fuit, ut eo solo homines in saxa verteret. Erat autem e Gorgonibus una, Medusa, ac sola inter eas mortalis, cum reliquæ passivæ non essent. Perseus igitur ad tam nobile facinus se comparans, arma ac dona a tribus diis mutuo accepit; alas a Mercurio, talares scilicet non axillares; a Plutone autem galeam; scutum denique a Pallade et speculum. Neque tamen (licet tanto apparatu instructus) ad Medusam recta perrexit, sed primum ad Græas divertit. Eæ sorores, ex altera parente, Gorgonibus erant; atque Grææ istæ canæ etiam a nativitate erant et tanquam vetulæ. Oculus autem iis tantummodo et dens erat omnibus unicus; quos prout exire foras quamque contigerat, vicissim gestabant, reversæ autem deponere solebant. Hunc itaque oculum, atque hunc dentem illæ Perseo commodarunt. Tum demum cum se abunde ad destinata perficienda instructum judicaret, ad Medusam properavit; impiger et volans. Illam autem offendit dormientem, neque tamen aspectui ejus (si forsan evigilaret) se committere audebat, sed cervice reflexa, et in speculum illud Palladis inspiciens, atque hoc modo ictus dirigens, caput Medusæ abscidit: ex sanguine autem ejusdem in terram fuso, statim Pegasus alatus emicuit. Caput autem abscissum Perseus in scutum Palladis transtulit et inseruit: cui etiamnum sua mansit vis, ut ad ejus intuitum omnes ceu attoniti aut siderati obrigerent.

Fabula ficta videtur de belligerandi ratione et prudentia. Atque primo omnis belli susceptio debet esse tanquam missio a Pallade; non a Venere certe (ut bellum Trojanum fuit) aut alia levi ex causa; quippe eum in consiliis solidis decreta de bellis fundari oporteat. Deinde de genere belli eligendo, tria proponit fabula præcepta, sana admodum et gravia. Primum est, ut de "subjugatione nationum finitimarum" quis non magnopere laboret. Neque enim eadem est patrimonii et imperii amplificandi ratio. Nam in possessionibus privatis, vicinitas prædiorum spectatur, sed in propagando imperio occasio, et belli conficiendi facilitas et fructus, loco vicinitatis esse debent. Itaque Perseus, licet orientalis, tamen tam longinquam expeditionem, usque ad extremum occidentem, minime detrectavit. Hujus rei exemplum insigne est in belligerandi di-

versa ratione patris et filii regum, Philippi et Alexandri. Ille enim in finitimis bellis occupatus, urbes paucas imperio adjecit, idque non sine maxima contentione et periculo. Quippe qui et alias, et præcipue in prælio Chæroneo, in ultimum discrimen adductus fuit: at Alexander longinquam expeditionem bene ausus in Persas, nationes infinitas subjugavit, magis itineribus quam prœliis fatigatus. Hoc ipsum adhuc clarius cernitur, in propagatione imperii Romanorum; qui quo tempore, ex parte occidentis, vix ultra Liguriam armis penetraverant, eodem tempore orientis provincias usque ad montem Taurum armis et imperio complexi sunt. Etiam Carolus Octavus rex Gallicæ, bellum Britannicum (quod matrimonio tandem compositum est) non admodum facile expertus, expeditionem illam Neapolitanam longinquam, admiranda, quadam facilitate et felicitate transegit. Habent certe hoc bella longinqua, ut cum iis manus conseratur, qui militiæ et armis invasoris minime sint assueti: quod in finitimis secus se habet. Etiam et apparatus in hujusmodi expeditionibus solet esse diligentior et instructior; et terror apud hostes ex ipso ausu et fiducia major. Neque etiam fere possit fieri in illis expeditionibus remotis per hostes, ad quos tam longo itinere pervenitur, diversio aliqua aut invasio reciproca, quæ in belligerandi ratione cum finitimis sæpius adhibetur. Caput autem rei est, quod in subjugandis finitimis, occasionum delectus in angusto versatur; at si quis longinquiora non detrectet, poterit pro arbitrio suo eo transferre bellum, ubi aut disciplina militaris maxime est enervata, aut vires nationis plurimum attritæ et consumptæ, aut dissidia civilia opportune oborta, ant aliæ hujusmodi commoditates se ostendant. Secundum est, ut semper subsit causa belli justa, et pia, et honorifica, et favorabilis: id enim alacritatem tum militibus, tum populis impensas conferentibus, addit, et societates aperit et conciliat, et plurimas denique commoditates habet. Inter causas autem belli, admodum favorabilis est ea, quæ ducit ad debellandas tyrannides, sub quibus populus succumbit, et prosternitur sine animis et vigore, tanquam sub aspectum Medusæ; quod etiam Herculi divinitatem conciliavit. Romanis certe magna religio fuit, strenue et impigre accurrere ad socios tuendos, si quoquo modo oppressi fuissent. Etiam bella ob vindictam justam fere semper felicia fuerunt; sicut bellum adversus Brutum et Cassium, ad vindicandam mortem Cæsaris; Severi ad vindicandam mortem Pertinacis; Junii Bruti ad vindicandam mortem Lucretiæ. Denique quicunque bello calamitates hominum et injurias aut levant aut vindicant, sub Perseo militant. Tertium ut in omni bello suscipiendo vera sit æstimatio virium; atque recte perpendatur, utrum bellum sit tale, quod confici et ad exitum perduci possit, ne quis vastas et infinitas spes persequatur. Prudenter enim Perseus inter Gorgonas (per quas bella repræsentantur) eam delegit, quæ in sua natura mortalis erat, neque ad impossibilia animum adjecit. Atque de iis, quæ in suscipiendo bello deliberationem subeunt, hæc præcipit fabula, reliqua ad belligerationem ipsam pertinent.

In bello maxime omnium prosunt illa tria dona deorum, adeo ut fortunam ipsam fere regant et trahant. Accepit enim Perseus celeritatem a Mercurio, occultationem consiliorum ab Orco, et providentiam a Pallade; neque caret allegoria, eaque prudentissima, quod alæ illæ celeritatis in rebus conficiendis (cum celeritas in bello plurimum possit) talares, non axillares fuerint, atque pedibus, non humeris additæ; quia non tam inprimis belli aggressibus, quam in iis, quæ sequuntur, et primis subsidio sunt, celeritas requiritur. Nullus enim error in bello magis frequens fuit, quam quod prosecutiones et subsidiarii impetus initiorum alacritati non respondeant. At galea Plutonis (quæ homines invisibiles reddere solebat) manifesta parabola est. Nam consiliorum occultatio post celeritatem maximi ad bellum est momenti: cujus etiam celeritas ipsa pars magna est. Celeritas enim consiliorum evulgationem prævertit. Ad galeam Plutonis spectant, ut unus bello præsit, cum mandatis liberis; consultationes enim cum multis, habent aliquid potius ex cristis Martis, quam ex galea Plutonis. Eodem spectant prætextus varii, et designationes ancipites, et famæ emissariæ, quæ oculos hominum aut perstringunt aut avertunt, atque vera consiliorum in obscuro ponunt. Etiam cautiones diligentes et suspicaces, de literis, de legatis, de perfugis, et complura alia, galeam Plutonis ornant et revinciunt. At non minus interest, consilia hostium explorare, quam sua occultare: itaque galeæ Plutonis adjungendum est speculum Palladis, per quod hostium vires, inopia, occulti fautores, dissidia et factiones, progressus, consilia cernantur. Quoniam vero tantum fortuitorum suscipit ratio belli, ut nec in consiliis propriis occultandis, nec in hostium explorandis, nec in celeritate ipsa, multum fiduciæ ponendum sit, ideo ante omnia sumendum Palladis scutum, providentiæ scilicet, ut quam minimum fortunæ relinquatur. Huc pertinent explorato vias inire, castra diligenter munire (quod in militia moderna in desuetudinem fere abiit; castra vero instar urbis munitæ, Romanis ad adversos prœlii eventus erant) acies stabilis et ordinata, non nimium fidendo cohortibus levis armaturæ, aut etiam equitum turmis; denique omnia, quæ ad solidam et solicitam defensivam spectant: cum plus valeat utique in bellis scutum Palladis, quam gladius ipse Martis. Verum Perseo utcunque copiis aut animis instructo, restat aliud quidpiam, maximi per omnia momenti, antequam bellum incipiatur: nimirum, ut divertat ad Græas. Grææ autem proditiones sunt, bellorum scilicet sorores, non germanæ illæ quidem, sed generis nobilitate quasi impares: bella enim generosa; proditiones degeneres et turpes. Earum descriptio elegans est, ut canæ a nativitate sint et tanquam vetulæ, propter perpetuas proditorum curas et trepidationes. Earum autem vis (antequam in manifestam defectionem crumpant) ant in oculo, aut in dente est: omnis enim factio, a statu quopiam alienata, et in proditionem propensa, et speculatur, et mordet. Atque hujusmodi oculus et dens tanquam communis est. Nam quicquid didicerunt et noverunt, fere per manus ab una ad alteram transit et percurrit. Et quod ad dentem attinet, uno quasi ore mordent, et eadem scandala jactant; ut si unam audias omnes

audias. Itaque Perseo sunt istæ Græcæ conciliandæ, atque in auxilium adducendæ, præsertim ut oculum et dentem suum ei commodent; oculum ad indicia; dentem ad rumores screndos, et invidiam conflandam, et animos hominum solicitandos. Postquam vero omnia bene fuerint ad bellum præparate disposita, illud imprimis curandum, quod Perseus fecit, ut Medusa dormiens inveniatur. Prudens enim belli susceptor semper fere hostem assequitur imparatum, et securitati propiorem. Denique in ipsis belli actionibus atque insultibus, ille intuitus in speculum Palladis adoperandus est. Plurimi enim ante ipsa pericula res hostium acute et attente introspicere possunt; at in ipso periculi articulo, aut terrore offunduntur, aut pericula nimium præcipites et a fronte spectant; unde in illa temere ruunt, vincendi memores, vitandi obliti. At neutrum horum fieri debet, sed in speculum Palladis, cervice reflexa, inspiciendum, ut impetus recte dirigatur, absque vel terrore, vel furore.

A bello perfecto et victoria, sequuntur effecta duo: Pegasi illa generatio et exsuscitatio; quæ satis evidentur famam denotat, quæ per omnia volat, et victoriam celebrat, et reliquias belli facilcs et in votum cedentes efficit. Secundum, gestatio capitis Medusæ in scuto; siquidem nullum præsidii genus huic ob præstantiam comparari possit. Unicum enim facinus insigne et memorabile, feliciter gestum et perpetratum, omnes hostium motus obrigescere facit, atque malevolentiam ipsam stupidam reddit.

EXEMPLUM TERTIUM PHILOSOPHIÆ, SECUNDUM PARABOLAS ANTIQUAS, IN MORALIBUS.

De cupiditate, secundum fabulam Dionysi.

Narrant Semelem Jovis pellicem, postquam juramento eum inviolabili ad votum indefinitum obstrinxisset, petiisse, ut ad amplexus suos accederet talis, qualis cum Junone consuesset. Itaque illa ex conflagratione perit. Infans autem, quem in utero gestabat, a patre exceptus, in femur ejus insutus est, donec menses fœtui destinatos compleret: ex quo tamen onere Jupiter interim nonnihil claudicabat. Itaque puer, quod Jovem, dum in femore ejus portaretur, gravaret et pungeret, Dionysi nomen accepit. Postquam autem editus esset, apud Proserpinam per aliquot annos nutritus est. Cum vero adultus esset, ore fere muliebri conspicicbatur, ut sexus videretur tanquam ambigui. Etiam extinctus et sepultus quondam erat ad tempus, et non ita multo post revixit. Atque prima juventa vitis culturam, atque adeo vini confectionem et usum primus invenit, et edocuit; ex quo celebris factus et inclytus, orbem terrarum subjugavit, et ad ultimos Indorum terminos perrexit. Curru autem vehebatur a tigribus tracto; circa eum subsultabant dæmones deformes, Cobali vocati, Acratus et alii. Quin et Musæ comitatui ejus se adjungebant: uxorem autem sibi sumpsit Ariadnem, a Theseo desertam et relictam. Arbor ei sacra erat hedera. Etiam sacrorum et ceremoniarum inventor et institutor habebatur: ejus tamen generis, quæ et fanaticæ erant, et plenæ corruptelarum, atque insuper crudeles. Furores quoque immittendi potestatem habebat. Certe in orgiis ejus, a mulieribus furore percitis, duo viri insignes discerpti narrantur, Pentheus et Orpheus: ille, dum arbore conscensa spectator eorum, quæ agerentur, curiosus esse voluisset; hic, cum lyram suaviter et perite pulsaret: atque hujus dei res gestæ cum Jovis rebus fere confunduntur.

Fabula videtur ad mores pertinere, ut vix quicquam in philosophia morali melius inveniatur. Describitur autem sub persona Bacchi natura cupiditatis, sive affectuum et perturbationum animi. Primum igitur, quod ad natalia cupiditatis attinet; origo cupiditatis omnis, licet nocentissimæ, non alia est, quam bonum apparens. Sicut enim virtutis mater est bonum existens, similiter cupiditatis mater est bonum apparens. Altera Jovis (sub cujus persona anima humana repræsentatur) uxor legitima, altera pellex: quæ tamen Junonis honores æmuletur, tanquam Semele. Concipitur vero cupiditas in voto illicito, prius temere concesso, quam rite intellecto et judicato. Atque postquam effervescere cœperit, mater ejus (natura scilicet et species boni) ex nimio incendio destruitur et perit. Processus autem cupiditatis a conceptu suo talis est: illa ab animo humano (qui ejus est genitor) et nutricatur, et occultatur, præcipue in inferiore parte ejus, tanquam femore; atque animum pungit, et convellit, et deprimit, adeo ut actiones et decreta ab ea impediantur, et claudicent. Quinetiam postquam consensu et tempore confirmata est, et in actus erumpit, ut jam quasi menses compleverit, et edita plane sit atque nata, primo tamen ad tempus nonnullum apud Proserpinam educatur, id est, latebras quærit, atque clandestina est, et quasi subterranea; donec remotis pudoris et metus frænis, et coalita audacia, aut virtutis alicujus prætextum sumit, aut infamiam ipsam contemnit. Atque illud verissimum est, omnem affectum vehementiorem tanquam ambigui sexus esse. Habet enim impetum virilem, impotentiam autem muliebrem. Etiam illud præclare, "Bacchum mortuum reviviscere;" videntur enim affectus quandoque sopiti, atque extincti; sed nulla fides habenda est eis, ne sepultis quidem: siquidem præbita materia et occasione resurgunt.

De inventione vitis parabola prudens est: omnis enim affectus ingeniosus est admodum et sagax, ad investigandum ea, quæ ipsum alant et foveant. Atqui ante omnia, quæ hominibus innotuere, vinum ad perturbationes cujuscunque generis excitandas et inflammandas, potentissimum est, et maxime efficax; atque est cupiditatibus in genere instar fomitis communis. Elegantissime autem ponitur affectus sive cupiditas, provinciarum subjugator, et expeditionis infinitæ susceptor: nunquam enim partis acquiescit, sed appetitu infinito, neque satiabili, ad ulteriora tendit, et novis semper inhiat. Etiam tigres apud affectus stabulant, et ad currum eorum subinde jugantur. Postquam enim affectus curulis esse cœperit, non pedestris, sed victor rationis, et quasi triumphator factus sit, in omnes, qui adversantur aut se opponunt, crudelis est, et indomitus ac immitis. Facetum autem est, quod circa currum Bacchi subsultant illi dæmones deformes et ridiculi. Omnis

enim affectus vehementior progignit motus in oculis, et ore ipso, et gestu, indecoros et inconditos, subsultories et deformes; adeo ut qui sibi ipsi fortasse in aliquo affectu (veluti ira, arrogantia, amore) videatur magnificus et tumidus, aliis tamen appareat turpis et ridiculus. Conspiciuntur autem in cupiditatis comitatu Musæ: neque enim reperitur ullus fere affectus, tam pravus et vilis, cui non blandiatur aliqua doctrina. Hac enim in re, ingeniorum indulgentia et procacitas, Musarum majestatem in immensum minuit; ut cum duces vitæ et signiferi esse debeant, sint non raro cupiditatum pedissequæ et oblectatrices.

Imprimis vero nobilis est illa allegoria, Bacchum amores suos in eam effudisse, quæ ab alio relicta erat et fastidita. Certissimum enim est, affectus id petere atque ambire, quod experientia jam pridem repudiavit. Atque norint omnes, qui affectibus suis servientes et indulgentes, pretium potiundi in immensum augent (sive honores appetant, sive amores, sive gloriam, sive scientiam, sive alia quæcunque) se res relictas petere, et a compluribus, per omnia fere secula, post experimentum, dimissas et repudiatas. Neque mysterio caret, quod hedera Baccho sacra fuerit; hoc enim duplici modo convenit. Primum, quod hedera hieme virescat; deinde, quod circa tot res (arbores, parietes, ædificia) serpat, ac circumfundatur, et se attollat. Quod ad primum enim attinet, omnis cupiditas per renitentiam et vetitum, et tanquam antiperistasin (veluti per frigora brumæ hedera) virescit, ac vigorem acquirit: secundo, affectus aliquis in humana anima prædominans, omnes ejus actiones et decreta, tanquam hedera, circumsepit; neque fere quicquam purum invenias, quo illa claviculas suas non imprimat. Neque mirum est, si superstitiosi ritus Baccho attribuantur, cum omnis fere malesanus affectus in pravis religionibus luxurietur: adeo ut hæreticorum colluvies Bacchanalia ethnicorum superarit; quorum etiam superstitiones, non minus cruentæ, quam turpes, extiterunt. Neque itidem mirum est, si furores a Baccho immitti putentur, cum et omnis affectus in excessu suo, veluti furor brevis sit, et, si vehementius obsidcat et incumbat, in insania sæpius terminetur. Illud autem de Pentheo et Orpheo inter orgia Bacchi laceratis, evidentem parabolam habet; cum affectus quisque prævalidus erga duas res sit asperrimus atque infensissimus: quarum altera est inquisitio in eum curiosa, altera, admonitio salutaris et libera. Neque auxilio fuerit, si illa inquisitio fiat tantum contemplationis aut spectandi gratia, tanquam arbore conscensa, absque omni animi malignitate; neque rursus, si admonitio illa, multa cum suavitate et dexteritate adhibeatur; verum utcunque non tolerant orgia, aut Pentheum, aut Orpheum. Postremo, illa confusio personarum Jovis et Bacchi, ad parabolam recte traduci potest; quandoquidem res gestæ nobiles et claræ, atque merita insignia et gloriosa, interdum a virtute et recta ratione, et magnanimitate, interdum autem a latente affectu, et occulta cupiditate (utcunque famæ et laudis celebritate utraque res pariter gaudeat) proveniant; ut non facile sit distinguere facta Dionysi a factis Jovis.

Verum in theatro nimis diu moramur; transeamus ad palatium animi; cujus limina majori cum veneratione et cura ingredi convenit.

FRANCISCI

BARONIS DE VERULAMIO, VICE-COMITIS SANCTI ALBANI,

DE

DIGNITATE ET AUGMENTIS SCIENTIARUM.

LIBER TERTIUS.

AD REGEM SUUM

CAPUT PRIMUM.

Partitio scientiæ in theologiam et philosophiam. Partitio philosophiæ in doctrinas tres; de numine, de natura, de homine. Constitutio philosophiæ primæ, ut matris communis omnium.

Historia omnis (rex optime) humi incedit, et ducis potius officio, quam lucis, perfungitur: poësis autem doctrinæ tanquam somnium: res dulcis et varia, et volens videri aliquid in se habere divini; quod etiam somnia vendicant. Verum jam tempus est mihi, ut evigilem, et me humo attollam, philosophiæ et scientiarum liquidum æthera secans.

Scientia aquarum similis est: aquarum aliæ descendunt cœlitus, aliæ emanant e terra. Etiam scientiarum primaria partitio sumenda est ex fontibus suis: Horum alii in alto siti sunt, alii hic infra. Omnis enim scientia duplicem sortitur informa-

tionem. Una inspiratur divinitus, altera oritur a sensu. Nam quantum ad illam, quæ docendo infunditur, scientiam; cumulativa ea est, non originalis; sicut etiam fit in aquis, quæ præter fontes primarios, ex aliis rivulis in se receptis augescunt. Partiemur igitur scientiam, in theologiam et philosophiam. Theologiam hic intelligimus inspiratam sive sacram; non naturalem, de qua paulo post dieturi sumus. At illam (inspiratam nimirum) ad ultimum locum reservabimus, ut eum ea sermones nostros claudamus; eum sit portus et sabbatum humanarum contemplationum omnium.

Philosophiæ autem objectum triplex, Dens, natura, homo: et triplex itidem radius rerum. Natura enim perentit intellectum radio directo; Deus autem propter medium inæquale (creaturas scilicet) radio refracto; homo vero sibi ipsi monstratus et exhibitus, radio reflexo. Convenit igitur partiri philosophiam in doctrinas tres; doctrinam de Numine, doctrinam de natura, doctrinam de homine. Quoniam autem partitiones scientiarum non sunt lineis diversis similes, quæ eoëunt ad unum angulum; sed potius ramis arborum, qui conjunguntur in uno trunco (qui etiam truncus ad spatium nonnullum integer est et continuus, antequam se partiatur in ramos); idcirco postulat res, ut priusquam prioris partitionis membra persequamur, constituatur una scientia universalis, quæ sit mater reliquarum, et habeatur in progressu doctrinarum, tanquam portio viæ communis, antequam viæ se separent et disjungant. Hanc scientiam, philosophiæ primæ, sive etiam sapientiæ (quæ olim rerum divinarum atque humanarum scientia definiebatur) nomine insignimus. Huic autem scientiæ nulla alia opponitur; cum ab aliis scientiis, potius limitibus, intra quos continetur, quam rebus et subjecto, differat, fastigia scilicet rerum tantummodo tractans. Hanc ipsam utrum inter desiderata reponere oporteat, hæsito; sed arbitror tamen poni debere. Equidem invenio farraginem quandam et massam inconditam doctrinæ ex theologia naturali, ex logica, ex partibus quibusdam physicæ (veluti de principiis, et de anima) compositam et congestam, et sublimitate quadam sermonis hominum, qui se ipsos admirari amant, tanquam in vertice scientiarum collocatam. Nos vero, misso fastu, id tantum volumus, ut designetur aliqua scientia, quæ sit receptaculum axiomatum, quæ particularium scientiarum non sint propria, sed pluribus earum in commune competant.

Plurima autem id genus axiomata esse nemo ambigat. Exempli gratia, "Si inæqualibus æqualia addas, omnia erunt inæqualia:" regula est ex mathematicis; eadem et in ethicis obtinet, quatenus ad justitiam distributivam; siquidem in justitia commutativa, ut paria imparibus tribuantur, ratio æquitatis postulat; at in distributiva, nisi imparia imparibus præstentur, iniquitas fuerit maxima. "Quæ in eodem tertio conveniunt, et inter se conveniunt:" regula est itidem ex mathematicis; verum simul tam potens in logica, ut syllogismi sit fundamentum. "Natura se potissimum prodit in minimis:" regula est in physicis, tam valida, ut etiam Democriti atomos produxerit; veruntamen eam recte adhibuit Aristoteles in politicis, qui contemplationem reipublicæ orditur a familia. "Omnia mutantur, nil interit:" regula itidem in physicis hoc modo prolata; "Quantum naturæ, nec minuitur, nec augetur:" eadem competit theologiæ naturali, sic variata; "Omnipotentiæ sunt opera, aliquid ex nihilo facere, et aliquid in nihilum redigere:" quod etiam Scriptura testatur, "Didici, quod omnia opera, quæ fecit Deus, perseverent in perpetuum; non possumus eis quicquam addere, nec auferre. Interitus rei arcetur per reductionem ejus ad principia:" regula est in physicis; eadem valet in politicis (ut recte notavit Machiavellus) cum illa, quæ interitum rerumpublicarum maxime prohibent, nihil aliud fere sint, quam reformatio earum, et reductio ad antiquos mores. "Putredo serpens magis contagiosa est, quam matura:" regula est in physicis, eadem insignis etiam in moralibus; cum homines profligatissimi et maxime facinorosi, minus corruptelæ inferant publicis moribus, quam qui aliquid videntur habere sanitatis et virtutis, et ex parte tantum mali sunt. "Quod conservativum est formæ majoris, id activitate potentius:" regula est in physicis. Etenim, ut non abscindatur ipse rerum nexus, nec detur (ut loquuntur) vacuum, facit ad conservandam fabricam universi. Ut vero gravia congregentur ad massam terræ, facit ad conservandam tantum regionem densorum. Itaque prior motus posteriorem domat. Eadem tenet in politicis: nam quæ faciunt ad conservandam ipsam politiam in sua natura, validiora sunt, quam quæ ad bene esse particularium in republica membrorum conducunt. Similiter eadem locum habet in theologia. Etenim in theologicis virtutibus, charitas, quæ est virtus maxime communicativa, præ reliquis omnibus eminet. "Augetur vis agentis per antiperistasin contrarii:" regula est in physicis. Eadem mira præstat in politicis; cum omnis factio, ex contraria ingruente, vehementer irritetur. "Tonus discors in concordem actutum desinens, concentum commendat:" regula est musicæ. Eadem in ethicis et affectibus obtinet. Tropus ille musicus, a clausula aut eadentia (quam vocant) cum jamjam adesse videatur, placide elabendi; convenit enim tropo rhetorico expectationem eludendi. "Fidium sonus tremulus" eandem affert auribus voluptatem, quam lumen, aquæ aut gemmæ insiliens, oculis;

"——splendet tremulo sub lumine pontus."

"Organa sensuum cum organis reflexionum conveniunt. Hoc in perspectiva locum habet; oculus enim similis speculo sive aquis. Et in acoustica; instrumentum enim auditus obici intra cavernam simile. Hæc pauca enumerasse sufficiet ad exempla. Quinimo magia Persarum (quæ in tantum est celebrata) in eo potissimum versabatur, ut arehiteeturas et fabricas rerum naturalium, et civilium, symbolizantes notaret. Neque hæc omnia, quæ diximus, et alia hujus generis, similitudines meræ sunt (quales hominibus fortasse parum perspicacibus videri possint) sed plane una eademque naturæ vestigia aut signacula, diversis materiis et subjectis impressa. Atque hæc res adhuc sedulo tractata non est. Invenias fortasse in scriptis, quæ ab ingeniis celsioribus promanarunt, hujusmodi axiomata raro et sparsim

inserta, ex usu argumenti, quod tractant: corpus vero aliquod talium axiomatum, quæ vim habeant quandam primitivam et summariam ad scientias, nemo composuit; cum tamen sit res ejusmodi, quæ insigniter naturam unam faciat; quod philosophiæ primæ munus esse autumant.

Est et alia hujus philosophiæ primæ pars, quæ, si ad vocabula respicias, vetus est; si ad rem, quam designamus, nova. Est autem inquisitio de conditionibus adventitiis entium (quas transcendentes dicere possumus) pauco, multo; simili, diverso; possibili, impossibili; etiam ente, et non ente; atque ejusmodi. Quandoquidem enim ista sub physica proprie non cadant, dissertatio autem dialectica circa ea, magis ad argumentandi rationes, quam ad rerum existentiam, sit accomodata; consentaneum omnino est, ut hæc contemplatio (in qua non parum est dignitatis et utilitatis) haud deseratur prorsus, sed in scientiarum partitionibus nonnullum saltem inveniat locum: verum tamen hoc intelligimus fieri debere, longe alio, quam quo tractari solet, modo. Exempli gratia: nemo, qui de multo et pauco verba fecit, hoc egit, ut causa reddatur, cur alia in natura, tam numerosa et ampla sint, et esse possint, alia tam rara et modica: Nam certe fieri non potest, ut in rerum natura tanta sit copia auri, quanta ferri; tanta rosæ, quanta graminis; tanta specificati, quanta non specificati. Similiter nemo, qui de simili et diverso disseruit, satis explicavit, cur, quasi perpetuo inter species diversas, interponantur participia quædam, quæ sunt speciei ambiguæ; veluti muscus inter putredinem et plantam; pisces, qui hærent, et loco non moventur, inter plantam et animal; sorices et mures, et alia nonnulla, inter animalia ex putredine, et ex semine prognata; vespertiliones inter aves et quadrupedes; pisces volantes (qui jam uotissimi sunt) inter aves et pisces; phocæ inter pisces et quadrupedes; et alias hujusmodi. Neque rursus causam indagavit quispiam, cur cum similia similibus gaudeant, ferrum ferrum non trahat, quod magnes facit, neque aurum ipsum aurum, licet argentum vivum alliciat. Circa hæc et similia in disceptatione de transcendentibus illis, altum est silentium: orationis enim apices, non rerum subtilitates, secuti sunt homines. Quamobrem horum transcendentium, sive conditionum entium adventitiarum inquisitionem veram et solidam, secundum naturæ non sermonis leges, philosophiam primam recipere volumus. Atque de philosophia prima (sive de sophia) quam inter desiderata haud immerito retulimus, hæc dicta sint.

CAPUT SECUNDUM.

De theologia naturali: et doctrina de angelis et spiritibus; quæ ejusdem est appendix.

COLLOCATA igitur sua in sede communi scientiarum parente, instar Berecynthiæ tanta gaudentis cœlesti sobole;

> " Omnes cœlicolas, omnes supera alta tenentes;"

revertamur ad partitionem illam trium philosophiarum, divinæ, naturalis, et humanæ. Nam theologia naturalis, philosophia etiam divina recte appellatur. Definitur autem hæc, ut sit talis scientia, seu potius scientiæ scintilla, qualis de Deo haberi potest, per lumen naturæ et contemplationem rerum creatarum; et ratione objecti, sane divina, ratione informationis, naturalis censeri potest. Hujus scientiæ limites ita vere signantur, ut ad atheismum confutandum et convincendum, et ad legem naturæ iuformandam se extendant; ad religionem autem adstruendam non proferantur. Quamobrem nec Deus unquam edidit miraculum, quo converteretur atheus: quia poterat ipso naturæ lumine ad notitiam Dei perduci; verum miracula ad convertendos idololatras et superstitiosos designata sunt, qui Numen agnoverunt, sed in cultu ejus aberrarunt; quoniam non sufficit lumen naturæ, Dei voluntati declarandæ, aut cultui ejus legitimo prodendo. Sicut enim opificis potentiam et peritiam ostendunt opera ejus, imaginem autem minime; sic opera Dei conditoris omnipotentiam et sapientiam ostendunt, imaginem ejus haudquaquam depingunt. Atque hac in re, ethnicorum opinio a sacra veritate recedit: illi siquidem mundum imaginem Dei statuebant, hominem mundi. At sacræ literæ haud tali honore mundum dignantur, ut Dei uspium imago dicatur, sed solummodo opus manuum ejus; hominem vero imaginem Dei immediate substituunt. Quocirca, quod sit Deus, quod rerum habenas tractet, quod summe potens, quod sapiens et præscius, quod bonus, quod remunerator, quod vindex, quod adorandus, etiam ex operibus ejus demonstrari et evinci potest; et admirabilia complura secreta circa attributa ejus, et multo magis circa regimen et dispensationem super universum, etiam sobrie ex iisdem elici et manifestari queunt; estque istud argumentum a nonnullis utiliter pertractatum. Verum ex intuitu rerum naturalium, atque humanæ rationis principiis, de fidei mysteriis, vel ratiocinari, vel etiam suadere vehementius, aut rursus ea curiosius introspicere et ventilare, et de modo mysterii inquirere, haud tutum meo judicio fuerit. " Da fidei quæ fidei sunt." Nam vel ethnici, in illustri et divina, de aurea catena, fabula, hoc ipsum concedunt: " quod Jovem de cœlo ad terras deducere nec homines potuerunt, nec dii; e contrario, quod Jupiter pertrahere eos potuerit e terra ad cœlum." Quare frustra sudaverit, qui cœlestia religionis arcana nostræ rationi adaptare conabitur: decebit potius, mentes nostras ad cœlestis veritatis thronum adorandum attollere. In hac igitur parte theologiæ naturalis, tantum abest, ut defectum aliquem observem, ut excessum potius reperiam; ad quem subnotandum paulum sum digressus, propter maxima incommoda et pericula, quæ ex eo tum religioni, tum philosophiæ impendent; utpote qui et religionem hæreticam procudet, et philosophiam phantasticam et superstitiosam.

Secus est, quod ad angelorum et spirituum naturam attinet; quæ nec inscrutabilis est, nec interdicta; ad quam etiam, ex affinitate, quam habet cum anima humana, aditus magna ex parte est patefactus. Præcipit certe Sacra Scriptura; " Nemo vos decipiat in sublimitate sermonum, et religione angelorum, ingerens se in ea, quæ non novit." Attamen si hoc monitum diligenter perpendas, duo duntaxat in eo vetita reperies; adorationem scilicet, qualis Deo de-

betnr, Angelorum; et fanaticas de iis opiniones, vel ultra creaturæ sortem eos efferentes, vel ampliorem de iis cognitionem, quam quis revera adeptis sit, venditantes. Cæterum sobria circa illos inquisitio, quæ vel per rerum corporearum scalam ad eorum naturam pernoscendam ascendat, vel in anima humana, veluti in speculo, eam intueatur, neutiquam prohibetur. Idem de spiritibus statuendum immundis, qui a statu suo deciderunt. Consortium eum iis, atque usus operæ eorum, illicitus est; multo magis qualiscunque cultus vel veneratio. At contemplotio et cognitio illorum naturæ, potestatis, illusionum, non solum ex locis Scripturæ sacræ, sed ex ratione, aut experientia, haud postrema pars est sapientiæ spiritualis. Sic certe Apostolus, "stratagematum ejus non ignari sumus." Ac non minus dæmonum naturam investigare in theologia naturali conceditur, quam venenorum in physica, aut vitiorum in ethica. Hanc autem scientiæ partem de Angelis et dæmonibus inter desiderata numerare non licet, quippe quæ ab haud paucis sit tentata: æquius esset, ut scriptorum in hoc genere pars haud parva, aut vanitatis, aut superstitionis, aut subtilitatis inutilis, arguantur.

CAPUT TERTIUM.

Partitio naturalis philosophiæ in speculativam et operativam: quodque illæ duæ, et in intentione tractantis, et in corpore tractatus segregari debeant.

Missa igitur theologia naturali (cui inquisitionem de spiritibus, ut appendicem attribuimus) accedamus ad secundam partem: videlicet illam de natura, sive philosophiam naturalem. Optime Democritus; "Scientiam de natura in profundis mineris, sive puteis, latere demersam." Non male chemici; "Vulcanum alteram naturam esse; quinetiam id celeriter perficere, quod natura per ambages et temporis moras solet." Quidni igitur philosophiam in duas partes secemus, fodinam et fornacem; et duo constituamus philosophorum munera, operarios in mineris, et fabros? Sane utcunque videamur hæc per lusum loqui; tamen hujus generis partitionem utilissimam esse censemus, eum proponetur vocabulis familiaribus et scholasticis; hoc est, ut dividatur "Doctrina de natura in inquisitionem causarum, et productionem effectuum; speculativam, et operativam." Altera naturæ viscera per scrutatur, altera naturam veluti super incudem efformat. Neque me fugit, quam arcto copulentur vinculo causæ et effectus, ut explicationem eorum aliquatenus conjungi sit necesse. Attamen quandoquidem omnis solida et fructuosa naturalis philosophia duplicem adhibeat scalam, eamque diversam, ascensoriam et descensoriam; ab experientia ad axiomata, et ab axiomatibus ad nova inventa; consultissimum judico ut hæ duæ partes, speculativa et operativa, et in intentione tractantis, et in corpore tractatus separentur.

CAPUT QUARTUM.

Partitio doctrinæ speculativæ de natura, in physicam specialem et metaphysicam: quarum physica causam efficientem et materiam, metaphysica causam finalem et formam inquirit. Partitio physicæ in doctrinas de principiis rerum, de fabrica rerum sive de munda, et de varietate rerum. Partitio physicæ de varietate rerum in doctrinam de concretis, et doctrinam de abstractis. Partitio doctrinæ de concretis "rejicitur ad easdem partitiones, quas suscipit" historia naturalis. Partitio doctrinæ de abstractis in doctrinam de schematismis materiæ, et doctrinam de motibus. Appendices duæ physicæ speculativæ, problemata naturalia, placita antiquorum philosophorum. Partitio metaphysicæ, in doctrinam de formis, et doctrinam de causis finalibus.

Naturalis philosophiæ partem, quæ speculativa est et theoricа, in physicam specialem et metaphysicam dividere placet. Atque in hac partitione attendant homines nos vocabulum metaphysicæ usurpare sensu, a receepto et vulgato discrepanti. Hic autem locus admonendi videtur, de nostro in genere, circa usum vocabulorum, instituto. Id hujusmodi est, ut tam in præmisso vocabulo metaphysicæ, quam in aliis, ubi conceptus et notiones nostræ novæ sunt, et a receeptis recedunt, maxima certe cum religione antiqua vocabula retineamus. Cum enim futurum speremus, ut ordo ipse et dilucida rerum explicatio, quam subjungere conamur, nos a prava vocabulorum (quibus utimur) intelligentia liberent; in cæteris omnino avemus (quotenus sine veritatis ac scientiarum dispendio fieri possit) vel minimum ab antiquorum aut opinionibus, aut loquendi more deflectere. Quin in re Aristotelis confidentiam proinde subit mirari; qui impetu quodam percitus contradictionis, et bellum universæ antiquitati indicens, non solum nova artium vocabula pro libitu cudendi licentiam usurpavit; sed etiam priscam omnem sapientiam extinguere et delere annisus est. Adeo ut neque nominet uspiam auctores antiquos, neque dogmatum eorum mentionem ullam faciat, nisi quo aut homines perstringeret, aut placita redargueret. Sane si famam nomini suo, ac sequacium turbam affectaverit, hoc rationibus suis imprimis accommodatum. Siquidem in veritate philosophica asserenda et recipienda, idem contingit, quod in veritate divina; "Veni in nomine Patris, nec recipitis me; si quis venerit in nomine suo, eum recipietis." Sed ex hoc cœlesti aphorismo, si, quem præcipue designaverit, speetemus; (nempe Antichristum omnium seculorum impostorem maximum) colligere licet, istud ipsum, "Venire in nomine suo," nulla antiquitatis, aut (si ita loqui licet) paternitatis habita ratione, rem mali ominis esse ad veritatem; utcunque eam sæpe numero comitetur illa fortuna, "Eum recipietis." Cæterum de viro tam eximio certe, et ob acumen ingenii mirabili, Aristotele, erediderim facile hanc ambitionem eum a discipulo suo accepisse, quem fortasse æmulatus est; ut si ille omnes nationes, hic omnes opiniones subigeret; et monarchiam quandam

in contemplationibus sibi conderet. Quanquam fieri possit, ut apud aliquos tetricos, et linguæ acerbæ, simili cum discipulo suo titulo insigniretur;

> " Felix terrarum prædo, non utile mundo
> Editus exemplum:"

eodem modo,

> " Felix doctrinæ prædo," etc.

Nobis vero ex altera parte (quibus, quantum calamo valemus, inter vetera et nova in literis fœdus et commercium contrahere cordi est) decretum manet, antiquitatem comitari usque ad aras; atque vocabula antiqua retinere, quanquam sensum eorum et definitiones sæpius immutemus; secundum moderatum illum et laudatum in civilibus novandi modum, quo rerum statu novato, verborum tamen solennia durent; quod notat Tacitus, " Eadem magistratuum vocabula."

Redeamus igitur ad acceptionem vocabuli metaphysicæ, nostro sensu. Patet ex iis, quæ supra dissernimus, disjungere nos philosophiam primam a metaphysica, quæ hactenus pro re eadem habitæ sunt. Illam communem scientiarum parentem, hanc naturalis philosophiæ portionem, posuimus. Atque philosophiæ primæ communia et promiscua scientiarum axiomata assignavimus. Etiam relativas et adventitias entium conditiones (quas transcendentes nominavimus) multum, paucum; idem, diversum; possibile, impossibile; et hoc genus reliqua, eidem attribuimus; id solummodo cavendo, ut physice, non logice tractentur. At inquisitionem de Deo, uno, bono, angelis, spiritibus, ad theologiam naturalem retulimus. Merito igitur quæri possit, quid tandem sit, quod metaphysicæ relinquatur? Certe nihil, sed ipsius naturæ pars multo præstantissima. Atque profecto citra veritates dispendium, hue usque de veterum sententia respondere liceat, physicam ea tractare, quæ penitus in materia mersa sunt et mobilia, metaphysicam abstracta magis et constantia. Rursus physicam in natura supponere existentiam tantum, et motum, et naturalem necessitatem; at metaphysicam etiam mentem et ideam. Nam hue forte redit ea, quam dicemus, res. Verum nos eam, missa sermonis sublimitate, perspicue et familiariter proponemus. Partiti sumus naturalem philosophiam in causarum inquisitionem, et productionem effectuum. Inquisitionem causarum in theoricam conjecimus. Eam in physicam et metaphysicam partiti sumus. Ergo necesse est, ut vera differentia harum sumatur ex natura causarum, quas inquirunt. Itaque absque aliqua obscuritate aut circuitione, physica est, quæ inquirit de efficiente et materia; metaphysica, quæ de formn et fine.

Physica igitur causarum vaga et incerta, et pro modo subjecti, mobilia complectitur; causarum constantiam non assequitur.

> " Limus ut hic durescit, et hæc ut cera liquescit,
> Uno eodemque igne "

Ignis duritiei causa, sed in limo; ignis colliquationis causa, sed in cera. Partiemur autem physicam in doctrinas tres. Natura enim aut collecta in unum, aut fusa et sparsa est. Colligitur vero in unum natura, aut propter communia rerum omnium principia; aut propter unicam integralem universi fabricam. Itaque hæc unio naturæ duas peperit physicæ partes: unam de principiis rerum; alteram de fabrica universi, sive de mundo; quas etiam doctrinas de summis appellare consuevimus. Tertia doctrina (quæ de natura sparsa sive fusa tractat) omnimodam rerum varietatem et summas minores exhibet. Ex his igitur patet tres omnino reperiri doctrinas physicas; de principiis rerum, de mundo sive de fabrica rerum, et de natura multiplici sive sparsa; quæ postrema (ut diximus) omnimodam rerum varietatem continet; estque veluti glossa prima, aut paraphrasis circa naturæ interpretationem. Harum trium partium desideratur totaliter nulla; cæterum quam vere et solide tractentur, non est hic definiendi locus.

At physicam sparsam sive de varietate rerum, rursus in duas partes dividemus; physicam de concretis, et physicam de abstractis; sive physicam de naturis. Altera (ut logicis vocabulis utamur) inquirit de substantiis, cum omni varietate suorum accidentium: altera de accidentibus per omnem varietatem substantiarum. Veluti si inquiratur de leone aut quercu, illa complura diversa accidentia suffulciunt: contra, si inquiratur de calore aut gravitate, illa plurimis distinctis substantiis insunt. Cum vero omnis physica sita sit in medio, inter historiam naturalem et metaphysicam; prior pars (si recte advertas) historiæ naturali propior est, posterior metaphysicæ. Physica autem concreta eandem subit divisionem, quam historia naturalis; ut sit vel circa cœlestia; vel circa meteora; vel circa globum terræ et magis; vel circa collegia majora, quæ elementa vocant; vel circa collegia minora, sive species; etiam circa prætergenerationes, et circa mechanica. Etenim in hisce omnibus historia naturalis factum ipsum perscrutatur et refert; at physica itidem causas: sed intellige hoc de causis fluxis, materia scilicet et efficiente. Inter hasce physicæ portiones, manca prorsus et imperfecta est ea, quæ inquirit de cœlestibus, cum tamen propter nobilitatem subjecti præcipue hominibus curæ esse deberet. Etenim astronomia fundata est in phænomenis non male; sed humilis est, et minime etiam solida: at astrologia in plurimis etiam fundamento caret. Certe astronomia talem offert humano intellectui victimam, qualem Prometheus olim, eum frandem Jovi fecit: adduxit ille loco bovis veri pellem bovis grandis et pulchri, stramine, et foliis, et viminibus suffarcinatam. Exhibet similiter et astronomia exteriora cœlestium (astrorum dicimus numerum, situm, motus, periodos) tanquam pellem cœli, pulchram, et in systemata fabre concinnatam: at viscera desunt (rationes nempe physicæ) ex quibus (hypothesibus astronomicis adjunctis) eruatur theoria; non quæ phænomenis tantum satisfaciat (cujus generis complures ingeniose confingi possent) sed quæ substantiam, et motum, et influxum cœlestium, prout revera sunt, proponat. Explosa enim fere jam pridem sunt illa; " raptus primi mobilis" et " soliditas cœli" (stellis in orbibus suis tanquam clavis in laquearibus infixis). Nec multo melius asseritur; quod sint diversi poli zodiaci et mundi; quod sit

secundum mobile renitentiæ in adversum primi mobilis raptus; quod omnia in cœlo ferantur per circulos perfectos; quod sint excentrici et epicycli, quibus motuum in circulis perfectis constantia servetur; quod in luna in superius nulla sit mutatio, aut violentia; et hujusmodi. Atque harum suppositionum absurditas in motum terræ diurnum (quod nobis constat falsissimum esse) luminos impegit. At vix quisquam est, qui inquisivit causas physicas, tum de substantia cœlestium tam stellari, quam interstellari, tum de celeritate et tarditate corporum cœlestium ad invicem, tum de incitatione motus diversa in eodem planeta, tum de motuum consecutione sub oriente in occidentem, aut e contra, deque progressionibus, stationibus, et retrogradationibus, tum de motuum sublatione, et casu, per apogæa et perigæa; tum de motuum obliquatione, vel per spiras ac versus tropicos texendo et retexendo, vel per sinuationes, quas draeones vocant; tum de polis rotationum, cur magis in tali parte cœli siti sint, quam in alia; tum de alligatione quorundam planetarum ad distantiam certam a sole: hujus, inquam, generis inquisitio vix tentata est, sed in mathematicis tantum observationibus et demonstrationibus insudatur. Eæ autem ostendunt, quomodo hæc omnia ingeniose concinnari et extricari possint, non quomodo vere in natura subsistere: et motus tantum apparentes, et machinam ipsorum fictitiam, et ad placitum dispositam, non causas ipsas et veritatem rerum indicant. Quocirca male astronomia, qualis nunc habetur, inter artes mathematicas, non sine dignitatis suæ dispendio, numeratur; cum debeat potius, si proprias partes tueri velit, constitui physicæ pars quasi nobilissima. Quicunque enim superlunarium et sublunarium conflicta divortia contempserit, et materiæ appetitus, et passiones maxime catholicas (quæ in utroque globo validæ sunt, et universitatem rerum transverberant) bene perspexerit; is ex illis, quæ apud nos cernuntur, luculentam capiet de rebus cœlestibus informationem; et ab iis e contra, quæ in cœlo fiunt, haud pauca de motibus inferioribus, qui nunc latent, perdiscet; non tantum quatenus hi ab illis regantur, sed quatenus habeant passiones communes. Quamobrem hanc partem astronomiæ, quæ physica est, desiderari statuimus. Eam astronomiam vivam nominabimus, ad differentiam bovis illius Promethei suffarcinati, et solummodo figura tenus bovis.

At astrologia multa superstitione referta est, ut vix aliquid sanum in ea reperiatur. Attamen eam potius exporgandam, quam prorsus abjiciendam esse censemus. Quod si quis hanc scientiam non in ratione, aut contemplationibus physicis, sed in cæca experientia, et complorium seculorum observatione fundatam esse contendat, ideoque rationum physicarum examen rejiciat, quod jactabant Chaldæi: is eadem opera et auguria revocet, et aruspicinam, et exta, et omnigenas fabulas deglutiat; nam et hæc omnia, ut diutinæ experientiæ, et per manus traditæ disciplinæ, dictamina fuisse asserebantur. Nos vero et, ut physicæ portionem, astrologiam recipimus, et non plus ei, quam ratio et rerum evidentia concedit, tribuimus; demptis superstitionibus et commentis. Ut vero rem paulo attentius introspiciamus; primo, quam inane illud commentum; quod singuli planetæ vicissim per horas regnent, ut spatio viginti quatuor horarum regna sua ter repetant, præter horas tres supernumerarias? Attamen hoc commentum nobis divisionem hebdomadæ (rem tam antiquam, et tam late receptam) peperit, ut ex alternatione dierum manifestissime patet; cum in principio diei sequentis regnet semper planeta, a planeta prioris diei quartus; propter tres illas horas, quas diximus, supernumerarias. Secundo, pro commento vano rejicere non dubitamus doctrinam de thematibus cœli, ad puncta temporis certa, cum distributione domorum; ipsas scilicet astrologiæ deliciaa; quæ Bacchanalia quædam in cœlestibus exercuerunt: nec satis mirari possumus, viros quosdam egregios, et in astrologia principes, tam levi ad ista astruenda argumento innixos esse. Aiunt enim, quando illud prodit experientia ipsa, solstitia, æquinoctia, novilunia, plenilunia, et hujusmodi stellarum revolutiones majores, manifesto et insigniter operari super corpora naturalia; necesse esse, ut posituræ stellarum magis exactæ et subtiliores, effectus quoque magis exquisitos et occultiores producant. Illi vero seponere primo debuerant, operationes solis per calorem manifestum; et similiter lunæ vim quandam magneticam, super incrementa æstuum semimenstrua: (nam fluxus et refluxus maris quotidianus alia res est:) his vero sepositis, reliquas planetarum vires super naturalia (quatenus experientia comprobantur) tenues admodum et infirmas, et quasi latitantes reperient, etiam in revolutionibus majoribus. Quare contrario prorsus modo concludere debuerant: nimirum; cum revolutiones illæ majores tam parum possint; exactas illas et minutas positurarum differentias nihil omnino virium obtinere. Tertio, fatalia illa, quod hora nativitatis aut conceptionis fortunam fœtus regat, hora inceptionis fortunam incepti, hora quæstionis fortunam rei inquisitæ, atque (ut verbo dicamus) doctrinas de nativitatibus, electionibus, et quæstionibus, et istiusmodi levitates, maxima ex parte, nihil certi aut solidi habere, et rationibus physicis plane redargui et evinci, judicamus. Illud igitur magis attinet dicere, quid tandem in astrologicis retineamus, aut probemus? atque in iis, quæ probamus, quid desideremus? nam hujus postremæ rei gratia (nempe ejus, quod desideratur) sermonem hunc instituimus, cum alias censuris (ut sæpe diximus) non vacemus. Atque inter recepta certe, doctrinam de revolutionibus plus sanitatis, quam reliqua, habere censemus. Verum id optimum factu foret, si regulas quasdam præscribamus, ad quarum trutinam et normam astrologica examinentur; ut utilia retineantur, rejiciantur inania. Prima ea sit, de qua jam ante monuimus, "Revolutiones majores retineantur, valeant minores horoscoporum et domorum." Illæ instar tormentorum grandium ictus suos a longinquo jacere queunt, hæ tanquam arcus minores spatia evadere, et virea deferre non possunt. Secunda est; "Operatio cœlestium in corpora omnigena non valet, sed tantum in tenuiora," qualia sunt humores, aër, et spiritus: atque hic tamen excipimus operationes caloris, solis et cœlestium, qui et ad metalla, et ad plurima subterranea proculdubio penetrat. Tertia est: "Omnis operatio cœlestium, potius ad massas rerum exten-

ditur, quam ad individua :" oblique tamen pervenit etiam ad individua nonnulla : illa scilicet, quæ ex individuis ejusdem speciei sunt maxime passibilia, et tanquam cera mollior; veluti cum constitutio aëris pestilens corpora minus resistentia occupat, magis resistentia præterit. Quarta est præcedenti non dissimilis: " Omnis operatio cœlestium non in puncta temporum, aut angustias minutas, sed in spatia majora defluit et dominatur:" itaque prædictiones de temperaturis anni, veræ esse possint; de diebus singulis, pro vanis merito habentur. Postrema est (quæ etiam prudentioribus astrologis semper placuit) quod " nulla insit astris fatalis necessitas;" sed quod inclinent ea potius, quam cogant. Addimus et illud (in quo in partes astrologiæ, si fuerit emendata, non obscure venire videbimur) nimirum quod nobis pro certo constet, cœlestia in se habere alios quosdam influxus, præter calorem et lumen; qui tamen ipsi, secundum regulas illas, quas jam posuimus, et non aliter, valent. Verum illi in intima physica latent, et longiorem dissertationem postulant. Visum est igitur nobis (his, quæ diximus, rite perpensis) inter desiderata reponere astrologiam his principiis nostris consentaneam : atque sicut astronomiam, quæ physicis rationibus nitatur, astronomiam vivam nominavimus; ita et astrologiam, quæ per easdem regitur, astrologiam sanam appellare placet. Circa quam recte conficiendam, licet ea, quæ diximus, non parum profutura sint; pauca tamen addemus more nostro, quæ liquido proponent, et ex quibus sit coagmentanda, et ad quæ adhibenda. Primo in astrologiam sanam recipiatur doctrina de commixtionibus radiorum, conjunctionibus scilicet et oppositionibus, et reliquis syzygiis, sive aspectibus planetarum inter se : planetarum autem per signa zodiaci pertransitum, et locationem sub iisdem signis, etiam huic parti de commixtionibus radiorum assignamus: locatio enim planetæ sub signo, est conjunctio quædam ejusdem cum stellis signi: quinetiam sicut conjunctiones, ita et oppositiones, et reliquæ syzygiæ planetarum, erga stellas signorum notandæ sunt; quod adhuc plene factum non est. At commixtiones radiorum stellarum fixarum ad invicem, utiles quidem sunt ad contemplationem de fabrica mundi, et regionum subjacentium natura; ad prædictiones minime, quia semper eodem modo se habent. Secundo recipiantur accessiones singulorum planetarum propius ad perpendiculum, aut recessiones ab ipso, secundum regionum climata : habent enim planetæ singuli, non minus quam sol, suas æstates, suas hiemes, in quibus fortius aut infirmius radios jaciant, propter rationem perpendiculi. Etenim nobis dubium non est, quin luna posita in leone fortius operetur super corpora naturalia, apud nos, quam posita in piscibus: non quod luna sub leone ad cor respiciat, sub piscibus ad pedes (sicut fabulantur); sed propter elevationem versus perpendiculum, et approximationem ad stellas majores, eadem prorsus ratione, qua et sol. Tertio recipiantur apogæa et perigæa planetarum cum debita disquisitione, ad quæ pertineat planetæ vigor in se ipso, ad quæ vicinitas ad nos. Planeta enim in apogæo, sive exaltatione sua, magis alacer est; in perigæo autem, sive casu suo, magis communicat. Quarto recipiantur (ut summatim dicamus) omnia reliqua accidentia motus planetarum; quales singulorum in itinere suo accelerationes, retardationes, progressus, stationes, retrogradationes; quales distantiæ a sole, combustiones, augmenta et diminutiones luminis, eclipses; et si quæ sint alia. Etenim faciunt hæc omnia, ut planetarum radii, vel fortius, vel debilius, diversis denique modis et virtutibus, operentur. Atque quatuor ista ad radiationes stellarum spectant. Quinto recipiantur, quæ naturas stellarum, sive erraticarum, sive fixarum, in propria sua essentia et activitate, reserare et detegere ullo modo queant: qualis magnitudo; qualis color et aspectus; qualis scintillatio et vibratio luminis; qualis situs versus polos, aut æquinoctium: qualcs asterisimi; quæ aliis stellis magis immixtæ, quæ magis solitariæ; quæ superiores, quæ inferiores; quæ ex fixis intra vias solis et planetarum (zodiacum scilicet) quæ extra: quis ex plunetis velocior, quis tardior : quis moveatur in ecliptica, quis pervagetur in latitudine : quis possit esse retrogradus, quis minime: quis patiatur omnimodam distantiam a sole, quis alligetur: quis moveatur celerius in apogæo, quis in perigæo : denique anomalia Martis, expatiatio Veneris, et laborcs sive passiones admirandæ, quæ non semel et in sole et in Venere deprehensæ sunt, et si quæ sint alia? Postremo recipiantur etiam ex traditione, naturæ et inclinationes planetarum particulares, atque etiam stellarum fixarum; quæ, quandoquidem magno consensu tradantur, non leviter (præterquam ubi cum physicis rationibus plane discordant) rejiciendæ sunt. Atque ex talibus observationibus coagmentatur astrologia sana; et secundum eas tantum, schemata cœli et componere, et interpretari oportet.

Adhibetur autem astrologia sana, ad prædictiones fidentius, ad elections cautius, ad utraque autem intra terminos debitos. Prædictiones fieri possint, de cometis futuris, qui (ut nostra fert conjectura) prænunciari possunt: et de omni genere meteororum, de diluviis, siccitatibus, ardoribus, conglaciationibus, terræ motibus, irruptionibus aquarum, eruptionibus ignium, ventis et pluviis majoribus, anni variis tempestatibus, pestilentiis, morbis grassantibus, ubertate et caritate frugum, bellis, seditionibus, sectis, transmigrationibus populorum; denique de omnibus rcrum vel naturalium vel civilium motibus, aut innovationibus majoribus : ad magis autem specialia, et forte singularia, prædictiones istæ (licet minore certitudine) deduci possint, si repertis primo hujusmodi temporum inclinationibus generalibus, acri judicio, vel physico, vel politico, applicentur illis speciebus aut individuis, quæ hujusmodi accidentibus maxime sint obnoxia; veluti si quis ex præcognitione tempestatum anni, eas reperiet (exempli gratia) magis olcis quam vitibus, magis phthisicis quam hepaticis, magis incolis collium quam vallium, magis monachis quam aulicis (propter victus rationem diversam) propitias aut perniciosas. Aut si quis ex cognitione influxus, quem cœlestia habent super spiritus humanos, reperiat eum talem esse, ut magis populis quam regibus, magis viris doctis et curiosis quam animosis et militaribus, magis voluptariis quam negotiosis aut politicis, faveat aut adversetur. Hujus-

modi autem innumera sunt, sed (quemadmodum diximus) non tantum cognitionem illam generalem, quæ sumitur ex astris (quæ sunt agentia) verum etiam particularem subjectorum (quæ sunt passiva) requirunt. Neque electiones prorsus rejiciendæ sunt; sed parcius illis, quam prædictionibus, fidendum. Videmus enim in plantationibus, et seminationibus, et insitionibus, ætatum lunæ observationes non esse res omnino frivolas. Sunt et multa ejus generis. Verum et electiones istæ etiam magis, quam prædictiones, per nostras regulas cohibendæ sunt. Atque illud semper attendendum; valere electiones in illis tantum casibus, ubi et virtus cœlestium talis sit, quæ non subito transeat: et actio inferiorum similiter talis, quæ non statim absolvatur; quemadmodum fit in illis exemplis, quæ memoravimus: nam nec incrementa lunæ subito transiguntur, nec incrementa plantarum. Punctualitas vero temporis omnino repudianda. Inveniuntur autem et talia complura (quod quis minus putet) in electionibus circa civilia. Quod si quis nos compellat eo nomine, quod ex quibus ista astrologia emendata elici possit; et rursus, ad quæ utiliter adhiberi, aliquid monstravimus; quis vero sit eliciendi modus, neutiquam docuimus: ille minus æquus fuerit, cum artem ipsam (cujus debitores non sumus) a nobis exigat. Hoc tamen circa illud ipsum, quod petit, monebimus; quatuor tantum esse modos, quibus ad hanc scientiam via sternatur. Primo per experimenta futura; dein per experimenta præterita; rursus per traditiones; ultimo per rationes physicas. Atque quod ad experimenta futura, quid attinet dicere? cum illa seculis compluribus ad eorum copiam comparandam indigeant; ut de iisdem cogitationem suscipere frustra fuerit. Quod vero ad experimenta præterita; ea certe in manu hominum sunt; licet res sit laboriosa et multi otii. Possint enim astrologi (si sibi non desint) omnes casus majores (veluti inundationes, pestilentias, prœlia, seditiones, mortes regum, si placet, et similia) ex historiæ fide depromere; et situm cœlestium, non secundum thematum subtilitatem, sed juxta regulas eas revolutionum, quæ a nobis adumbratæ sunt, qualis fuerit sub iisdem temporibus, intueri: ut ubi manifestus fuerit eventuum consensus et conspiratio, ibi prædictionis norma probabilis constituatur. Quatenus ad traditiones; eas ita ventilare oportet, ut quæ cum rationibus physicis manifesto pugnent, e medio tollantur; quæ vero cum iis bene consentiant, etiam auctoritate sua valeant. Quantum denique ad physicas rationes; illæ maxime huic inquisitioni accommodatæ sunt, quæ de catholicis materiæ appetitibus et passionibus, et de motibus corporum simplicibus et genuinis inquirunt. His enim alis ad cœlestia ista materiata ascenditur tutissime. Atque de astrologia sana hactenus.

Insaniæ autem astrologicæ (præter ea, quæ a principio notavimus, commenta) alia quædam portio superest non prætermittenda: quæ tamen ab astrologia seclusi solet, et in magiam, quam vocant, cœlestem transferri. Ea nacta est mirum commentum ingenii humani, nimirum, ut benevolus aliquis situs astrorum in sigillis aut signaculis (puta metalli, aut gemmæ alicujus ad intentionem propriæ) excipiatur, quæ horæ ejus felicitatem alias prætervolaturam detineant, et quasi volatilem figant. Quemadmodum graviter ille conqueritur, de tam nobili apud antiquos arte, jampridem amissa:

> "Annulus infuso non vivit mirus Olympo,
> Non magis ingentes humili sub lumine Phœbos
> Feri gemma, aut celso divulsas cardine lunas."

Certe reliquias sanctorum, earumque virtutes, recepit ecclesia Romana (neque enim in divinis et immateriatis fluxus temporis obest) verum ut condantur reliquiæ cœli, quo hora, quæ recessit et tanquam mortua est, reviviscat et continuetur, mera est superstitio. Missa igitur hæc faciamus, nisi forte Musæ aniculæ jam factæ sint.

Physicam abstractam in duas partes rectissime dividi posse statuimus: doctrinam de schematismis materiæ, et doctrinam de appetitibus et motibus. Utrosque cursim enumerabimus, unde veræ physicæ de abstractis adumbratio quædam deduci possit. Schematismi materiæ sunt, densum, rarum; grave, leve; calidum, frigidum; tangibile, pneumaticum; volatile, fixum; determinatum, fluidum; humidum, siccum; pingue, crudum; durum, molle; fragile, tensile; porosum, unitum; spirituosum, jejunum; simplex, compositum; absolutum, imperfecte mistum; fibrosum, atque venosum, simplicis posituræ sive æquum; similare, dissimilare; specificatum, non specificatum; organicum, inorganicum; animatum, inanimatum: neque ultra rem extendimus. Sensibile enim et insensibile, rationale et irrationale, ad doctrinam de homine rejicimus. Appetituum vero et motuum duo genera sunt: sunt enim vel motus simplices, in quibus radix omnium naturalium actionum continetur, pro ratione tamen schematismorum materiæ; vel motus compositi sive producti; a quibus ultimis recepta philosophia (quæ parum de corpore naturæ stringit) auspicatur. Debent autem haberi hujusmodi motus compositi (quales sunt generatio, corruptio, et reliqui) pro pensis quibusdam, aut summis motuum simplicium, potius quam pro motibus primitivis. Motus simplices sunt, motus antitypiæ, quem vulgo motum, ne fiat penetratio dimensionum, vocant: motus nexus, quem motum ex fuga vacui appellant: motus libertatis, ne detur compressio aut extensio præternaturalis: motus in sphæram novam, sive ad rarefactionem et condensationem: motus nexus secundi, sive ne detur solutio continuitatis: motus congregationis majoris, sive ad massas connaturalium suorum, qui vulgo dicitur motus naturalis: motus congregationis minoris, qui vulgo dicitur sympathiæ et antipathiæ: motus disponens, sive ut partes bene collocentur in toto: motus assimilationis sive multiplicationis naturæ suæ super aliud: motus excitationis, ubi agens nobilius motum in alio latentem et sopitum excitat: motus sigilli sive impressionis, operatio scilicet absque communicatione substantiæ: motus regius, sive cohibitio reliquorum motuum a motu prædominante: motus absque termino, sive rotatio spontanea: motus trepidationis; sive systoles, et diastoles, corporum scilicet, quæ locantur inter commoda et incommoda: postremo decubitus, sive exhorrentia motus, quæ etiam plurimarum rerum est causativa. Hujusmodi sunt motus simplices, qui ex penetralibus naturæ vere prodeunt:

quique complleati, continuati, alternati, frænati, repetiti, et multis modis aggregati, motus illos compositos, sive summas motuum, quæ receptæ sunt, aut illis similes constituunt. Summæ motuum, sunt decantati illi motus, generatio, corruptio, augmentatio, diminutio, alteratio, et latio: etiam mixtio, separatio, versio. Supersunt tantum tanquam appendices physicæ, mensuræ motuum: quid possit quantum, sive dosis naturæ? Quid possit distantia? id quod orbis virtutis sive activitatis non male vocatur. Quid possint iucitatio et tarditas? Quid brevis aut longa mora? Quid vis aut hebetudo rei? Quid stimulus peristaseos? Atque hæ sunt physicæ veræ de abstractis partes genuinæ. Etenim in schematismis materiæ, in motibus simplicibus, in summis sive aggregatiouibus motuum, et in mensuris motuum, physica de abstractis absolvitur. Nam motum voluntarium in animalibus; motum qui fit in actionibus sensuum; motum phantasiæ, appetitus, et voluntatis; motum mentis, decreti, et intellectualium, ad proprias doctrinas amandamus. Illud tamen iterato monemus, universa hæc, quæ diximus, in physica non ulterius tractari, quam ut inquirantur materia et efficiens ipsorum; retractantur enim in metaphysica, quoad formas et fines.

Physicæ subjungemus appendices insignes duas; quæ non tam ad materiam, quam ad modum inquisitionis, spectant; problemata naturalia, et placita antiquorum philosophorum. Prior naturæ multiplicis sive sparsæ appendix est: secunda naturæ unitæ, sive summarum; utraque ad solertem dubitationem pertinet, quæ scientiæ pars est non contemnenda. Nam problemata particulares dubitationes complectuntur; placita generales circa principia et fabricam. Problematum exemplum nobile est in libris Aristotelis: quod genus operis meruit certe, non solum ut posterorum laudibus celebraretur, verum etiam ut eorum laboribus continuaretur; cum dubitationes indies oriantur novæ. Attamen in hac re adhibenda est cautio magni utique momenti. Dubiorum commemoratio et propositio duplicem in se habet fructum: unum, quod philosophiam muniat contra errores: quando id, quod non plane liquet, non judicatur aut asseritur, (ne error errorem gigneret) sed suspenditur de eo judicium, et non fit positivum: alterum, quod dubitationes in codicillos relatæ, totidem spongiæ sunt, quæ incrementa scientiæ perpetuo ad se sugant et allicant; unde fit ut illa, quæ, nisi præcessissent dubitationes, leviter et siccо pede transmissa fuissent, dubitationum admonitu attente et studiose observentur. Verum hæ duæ utilitates vix unum compensant incommodum, quod, nisi sedulo prohibentur, se ingeret: nimirum quod dubitatio, si semel admittatur tanquam justa, et fiat quasi authentica, statim defensores in utramque partem suscitabit, qui etiam posteris eandem licentiam dubitandi transmittant: adeo ut homines ingenia sua intendant et applicent ad hoc, ut alatur potius dubitatio, quam terminetur aut solvatur. Cujus quidem rei exempla et in jurisperitis, et in academicis ubique occurrunt: quibus moris est, ut dubitationem semel admissam, perpetuam esse velint, nec minus dubitandi, quam asserendi, instrumenta amplectantur: cum tamen ille demum sit ingenii usus legitimus, qui ex dubiis certa faciat, non qui certa in dubium vocet. Quare calendarium dubitationum sive problematum in natura et desiderari asseo, et suscipi probo: modo curæ sit, ut aucta scientia indies (quod fiet proculdubio si nos audiant homines) quæ claræ discussæ sint dubitationes ex albo deleantur. Huic calendario aliud addi cuperem, non minus utile: cum enim in omni inquisitione inveniantur hæc tria, perspicue vera, dubia, perspicue falsa: utilissimum foret, calendario dubiorum, calendarium falsitatum et errorum popularium, vel in historia naturali, vel in dogmatibus grassantium, adjungere: ne illæ amplius scientiis molestæ sint.

Quod ad placita antiquorum philosophorum, qualia fuerunt Pythagoræ, Philolai, Xenophanis, Anaxagoræ, Parmenidis, Leucippi, Democriti, aliorum (quæ homines contemptim percurrere solent) non abs re fuerit paulo modestius in ea oculos conjicere. Etsi enim Aristoteles, more Ottomanorum, regnare se haud tuto posse putaret, nisi fratres suos omnes contrucidasset; tamen iis, qui nou regnum aut magisterium, sed veritatis inquisitionem atque illustrationem sibi proponunt, non potest nou videri res utilis, diversas diversorum, circa rerum naturas, opiniones, sub uno aspectu intueri. Neque tamen subest spes quod veritas aliqua purior, ex illis aut similibus theoriis, speranda ullo modo sit. Quemadmodum enim eadem phænomena, iidem calculi et Ptolemæi principiis astronomicis, et Copernici competunt: ita experientia ista vulgaris, qua utimur, atque obvia rerum facies, pluribus diversis theoriis se applicare potest: ubi ad rectam veritatis indagationem longe alia severitate opus fuerit. Eleganter enim Aristoteles: "Infantes primo balbutientes, quasvis mulieres appellare matres; post autem propriam matrem discernere." Sic certe puerilis experientia, omnem philosophiam appellabit matrem: adulta vero matrem veram internoscet. Interea juvabit philosophias discrepantes, veluti diversas naturæ glossas (quarum una fortasse uno loco, alia alio est emendatior) perlegere. Optarim igitur, ex vitis antiquorum philosophorum, ex fasciculo Plutarchi de placitis eorum, ex citationibus Platonis, ex confutationibus Aristotelis, ex sparsa mentione, quæ habetur in aliis libris, tam ecclesiasticis, quam ethnicis (Lactantio, Philone, Philostrato, et reliquis) opus confici, cum diligentia et judicio, de antiquis philosophiis. Tale enim opus nondum extare video. Attamen hic moneo, ut hoc fiat distincte: ita ut singulæ philosophiæ seorsum componantur et continuentur; non per titulos et fasciculos (quod Plutarchus fecit) excipiantur. Quævis enim philosophia integra se ipsam sustentat: atque dogmata ejus sibi mutuo et lumen et robur adjiciunt: quod si distrahantur, peregrinum quiddam et durum sonant. Certe quando apud Tacitum lego facta Neronis aut Claudii, circumstantiis temporum, personarum, et occasionum vestita; nil video quod a probabilitate prorsus abhorreat: eum vero eadem lego in Suetonio Tranquillo, per capita et communes locos, minimeque in serie temporis repræsentata, portenta quædam videntur, et plane incredibilia. Neque absimilis est ratio philosophiæ, quando proponitur integra, et quando in frustra concisa et dissecta. Neque

vero ex hoc placitorum philosophiæ calendario nuperas theorias et dogmata exeludo; sicut illam Theophrasti Paracelci, eloquenter in corpus quoddam et harmoniam philosophiæ redactam a Severino Dano; aut Telesii Consentini, qui Parmenidis philosophiam instaurans, arma Peripatetieoram in illos ipsos vertit; aut Patricii Veneti, qui Platonieorum fumos sublimavit; aut Gilberti popularis nostri, qui Philolai dogmata reposuit; aut alterius cujuscunque, si modo dignus sit. Horum vero (quoniam volumina integra extant) summæ tantum inde eonfieiendæ, et cum cæteris conjungendæ. Atque de physiea eam appendicibus hæc dicta sint.

Quantum ad metaphysicam, assignavimus jam ei inquisitionem eausarum formalinm et finalium; quæ assignatio, quatenus ad formas, incassum faeta videatur. Invaluit siquidem opinio atque inveteravit, rerum formas essentiales, seu veras differentias, nulla humana inveniri diligentia posse. Quæ opinio interim nobis elargitur, atque concedit, inventionem formarum ex omnibus seientiæ partibus dignissimam esse, quæ investigetur, si modo fieri possit, ut reperiantur. Ad inventionis possibilitatem vero qaod attinet, sunt certe ignavi regionum exploratores, qui ubi nil nisi cœlum et pontum vident, terras ultra esse prorsus negant. At manifestum est Platonem, virum sublimis ingenii (quique velnti ex rupe excelsa omnia circumspiciebat) in sua de ideis doctrina, "Formas esse verum scientiæ objectnm," vidisse; utcunqae sententiæ hujus verissimæ fructum amiserit, formas penitus a materia abstractas, non in materia determinatas, contemplando et prensando: unde factum est, ut ad speenlationes theologieas diverteret; quod omnem naturalem suam philosophiam infecit et polluit. Quod si diligenter, serio, et sincere ad actionem et usum oculos convertamus; non difficile erit disquirere, et notitiam assequi, quæ sint illæ formæ, quarum cognitio res humanas miris modis locupletare et beare possit. Snbstantiarum enim formæ (uno homine excepto, de quo Scriptura, "Formavit hominem de limo terræ, et spiravit in faeiem ejus spiraculum vitæ;" non ut de cæteris speciebus, "Producant aqnæ, Producat terra") species, inquam, creaturarum (prout nanc per eompositionem et transplantationem inveniuntur multiplieatæ) ita perplexæ sunt et complicatæ, ut aut omnino de iis inqairere frustra sit; aut inquisitio earum, qualis esse potest, seponi ad tempus, et postquam formæ simplicioris naturæ rite exploratæ sint et inventæ, tum demum institui debeat. Quemadmodum enim nec facile esset, nec ullo modo utile, formam soni investigare ejus, qui verbum aliquod constituat, cum verba eompositione et transpositione literarum sint infinita: at soni, qui literam aliquam simplieem exprimat, formam inquirere (qnali scilicet collisione, qnali instrumentorum vocis applicatione, constituatur) eomprehensibile est, imo faeile: quæ tamen formæ literarum eognitæ ad formas verborum illieo nos deducent: eadem prorsus ratione, formam inquirendo leonis, quercus, aari, imo etiam aquæ, aut aëris, operum quis luserit: formam vero inquirere densi, rari; calidi, frigidi; gravis, levis; tangibilis, pneumatici; volatilis, fixi; et similium, tam schematismorum, quam motuum, quos in physica tractanda, magna ex parte, enumeravimus, (et formas primæ elassis appellare consuevimus,) quique (veluti literæ alphabeti) numero haud ita multi sunt, et tamen essentias et formas omnium substantiarum conficiunt et sustinent; hoc est, inquam, illud ipsum, quod conamur; quodque eam partem metaphysicæ, de qna nune inquirimus, eonstituit et definit. Neque hæc offieiunt, quo minus physiea easdem naturas consideret quoque (ut dietum est) sed tantum qnoad eausas fluxas. Exempli gratia, si de causa inquiratnr albedinis ia nive, vel spuma; recte redditur, quod sit subtilis inmixtio aëris cnm aqua. Hæc antem, longe abest, ut sit forma albedinis, enm aër etiam pulveri vitri aut crystalli intermixtus, albedinem similiter procreat, non minus quam si admisceatur aquæ; verum causa efficiens illa tantum est, quæ nihil aliad quam vehiculum est formæ. At in metaphysiea, si fiat inquisitio, hujusmodi quidpiam reperies: eorpora duo diaphana intermixta portionibus eorum optieis, simpliei ordine sive æqualiter collocatis, eonstitaere albedinem. Hane metaphysicæ partem desiderari reperio. Nec mirum; quia illo inquirendi modo, qui hueusque in usum venit, nnaquam in seculum comparebunt rerum formæ. Radix autem mali hujus, ut et omnium, ea est; quod homines et propere nimis et nimis longe, ab experientia et rebus particularibus, eogitationes suas divellere et abstrahere consueverunt, et suis meditationibus et argumentationibus se totos dèdere.

Usus autem hujus partis metaphysieæ, quam desideratis annnmero, duas ob causas vel maxime excellit. Prima est, quod scientiarum omniam officium sit et propria virtus, ut experientiæ ambages, et itinera longa (quantum veritatis ratio permittit) abbrevient; ne proinde remedium veteri querimoniæ afferant, de vita brevi et arte longa. Illud vero optime præstatur, axiomata seientiarum in magis generalia, et quæ omni materiæ rerum individuarum competant, colligendo et aniendo. Sunt enim scientiæ instar pyramidum, quibus historia et experientia, tanquam basis unica, substernuntur; ac proinde basis naturalis philosophiæ est historia naturalis: tabulatum primum a basi est physiea; vertici proximam metaphysiea: ad conum quod attinet et punctum vertieale (opus quod operatur Deus a principio usque ad finem; summariam nempe naturæ legem) hæsitamus merito, an humana possit ad illud inquisitio pertingere. Cæterum hæc tria, veræ sunt scientiarum contabnlationes, suntque apod homines propria seientia inflatos, et theomachos, tanquam tres moles giganteæ:

> "Ter sunt conati imponere Pelio Ossam,
> Scilicet atque Ossæ frondosum involvere Olympum."

Apud eos vero, qui se ipsos exinanientes, omnia ad Dei gloriam referunt, tanquam trina illa acclamatio, Sancte, Sancte, Sancte. Sanetus enim Deus in multitudine operum suorum, sanetus in ordine eorum, sanetus in unione. Qaare speculatio illa Parmenidis et Platonis (quamvis ia illis nuda fuerit speculatio) excelluit tamen; "Omnia per sealam quandam ad unitatem ascendere." Atque illa demum scientia cæteris est præstantior, quæ humanum intelleetnm

minimum multiplicitate onerat, quam liquet esse metaphysicam: quippe quæ contemplatur præcipue simplices illas rerum formas (quas superius formas primæ classis nominavimus) quandoquidem licet numero paucæ, tamen commensurationibus et coordinationibus suis omnem varietatem constituunt. Secunda res, quæ hanc metaphysicæ partem de formis nobilitat, hæc nimirum est; quod potestatem humanam emancipet maxime et liberet; eamque in amplissimum et apertissimum operandi campum educat. Nam physica per angustos et impeditos calles humanam operam dirigit, naturæ ordinariæ flexuosos tramites imitata. Sed latæ undique sunt sapientibus viæ; sapientiæ nimirum (quæ a veteribus rerum divinarum et humanarum scientia definiebatur) mediorum copia et varietas semper suppetit. Causæ enim physicæ, novis inventis, in simili materia, lucem et ansam præbent: at qui formam aliquam novit, novit etiam ultimam possibilitatem superinducendi naturam illam in omnigenam materiam, eoque minus inter operandum restringitur et alligatur, vel ad materiæ basim, vel ad conditionem efficientis. Quod genus scientiæ eleganter describit etiam Salomon, etsi sensu magis divino: "Non arctabuntur gressus tui, et currens non habebis offendiculum." Intelligit scilicet sapientiæ vias, nec angustiis nec obicibus obnoxias esse.

Metaphysicæ pars secunda est finalium causarum inquisitio, quam non ut prætermissam, sed ut male collocatam notamus. Solent enim inquiri inter physica, non inter metaphysica. Quanquam si ordinis hoc solum vitium esset, non mihi fuerit tanti. Ordo enim ad illustrationem pertinet, neque est hæc substantia scientiarum. At hæc ordinis inversio defectum insignem peperit, et maximam philosophiæ induxit calamitatem. Tractatio enim causarum finalium in physicis, inquisitionem causarum physicarum expulit et dejecit, effecitque ut homines in istiusmodi speciosis et umbratilibus causis acquiescerent, nec inquisitionem causarum realium, et vere physicarum strenue urgerent; ingenti scientiarum detrimento. Etenim reperio hoc factum esse, non solum a Platone, qui in hoc littore semper anchoram figit, verum etiam ab Aristotele, Galeno, et aliis, qui sæpissime etiam ad illa vada impingunt. Etenim qui causas adduxerit hujusmodi; "Palpebras cum pilis, pro sepi et vallo esse, od munimentum oculorum:" aut "cornii in animalibus firmitudinem esse ad propellendos calores et frigora;" aut "ossa pro columnis et trabibus a natura induci, quibus fabrica corporis iunitatur:" aut "folia arborum emitti, quo fructus minus patiantur a sole et vento:" aut "nubes in sublimi fieri, ut terram imbribus irrigent:" aut "terram densari et solidari, ut statio et mansio sit animalium;" et alia similia: is in metaphysicis non male ista allegarit; in physicis autem nequaquam. Imo, quod cœpimus dicere, hujusmodi sermonum discursus (instar remorarum, uti fingunt, navibus adhærentium) scientiarum quasi velificationem et progressum retardarunt, ne cursum suum tenerent, et ulterius progrederentur: et jam pridem effecerunt, ut physicarum causarum inquisitio neglecta deficeret, ac silentio præteriretur. Quapropter philosophia naturalis Democriti, et aliorum, qui Deum et mentem a fabrica rerum amoverunt; et structuram universi infinitis naturæ prælusionibus et tentamentis (quas uno nomine fatum, aut fortunam vocabant) attribuerunt; et rerum particularium causas materiæ necessitati, sine intermixtione causarum finalium, assignarunt; nobis videtur (quantum ex fragmentis et reliquiis philosophiæ eorum conjicere licet) quatenus ad causas physicas, multo solidior fuisse, et altius in naturam penetrasse, quam illa Aristotelis et Platonis: hanc unicam ob causam, quod illi in causis finalibus nunquam operam triverunt; hi autem eas perpetuo inculcarunt. Atque magis in hac parte accusandus Aristoteles, quam Plato: quandoquidem fontem causarum finalium, Deum scilicet, omiserit, et naturam pro Deo substituerit, causasque ipsas finales, potius ut logicæ amator, quam theologiæ, amplexus sit. Neque hæc eo dicimus, quod causæ illæ finales veræ non sint, et inquisitione admodum dignæ in speculationibus metaphysicæ; sed quia dum in physicarum causarum possessiones excurrunt et irruunt, misere eam provinciam depopulantur et vastant. Alioquin, si modo intra terminos suos coërceantur, magnopere hallucinantur, quicunque eas physicis causis adversari aut repugnare putent. Nam causa reddita, quod "palpebrarum pili oculos muniant," nequaquam sane repugnat alteri illi, "quod pilositas soleat contingere humiditatum orificiis:

Muscosi fontes," etc.

Neque causa reddita, quod "coriorum in animalibus firmitudo pertinet ad cœli injurias propulsandas," adversatur illi alteri, "quod illa firmitudo fit ob contractionem pororum, in extimis corporum, per frigus et deprædationem aëris." Et sic de reliquis: conspirantibus optime utrisque causis; nisi quod altera intentionem, altera simplicem consecutionem denotet. Neque vero ista res in dubium vocat providentiam divinam, aut ei quicquam derogat; sed potius eandem miris modis confirmat et evehit. Nam sicut in rebus civilibus prudentia politica fuerit multo altior et mirabilior, si quis opera aliorum ad suos fines et desideria abuti possit, quibus tamen nihil consilii sui impertit (ut interim ea agant, quæ ipse velit, neutiquam vero se hoc facere intelligant) quam si consilia sua eum administris voluntatis suæ communicaret: sic Dei sapientia effulget mirabilius, cum natura aliud agit, providentia aliud elicit; quom si singulis schematibus et motibus naturalibus, providentiæ characteres essent impressi. Scilicet Aristoteli, postquam naturam finalibus causis impregnasset: "Naturamque nihil frustra facere, suique voti semper esse compotem (si impedimenta abessent)" et hujusmodi multa eo spectantia posuisset; amplius Deo non fuit opus: at Democritus et Epicurus, eum atomos suos prædicabant, eousque a subtilioribus nonnullis tolerabantur; verum cum ex eorum fortuito concursu, fabricam ipsam rerum absque mente coaluisse asserierent, ab omnibus risu excepti sunt. Adeo ut tantum absit, ut causæ physicæ homines a Deo et providentia abducant, ut contra potius philosophi illi, qui in iisdem eruendis occupati fuerunt, nullum exitum rei reperiant, nisi postremo ad Deum et providentiam confugiant. At-

quæ hæc de metaphysica dicta sint: cujus partem de causis finalibus, in libris et physicis et metaphysicis, tractatam non negaverim; in his recte, in illis perperam, propter incommodum inde secutum.

CAPUT QUINTUM.

Partitio operativæ doctrinæ de natura in mechanicam et magiam; quæ respondent partibus speculativæ: physicæ mechanica, metaphysicæ magia; et expurgatio vocabuli magiæ. Appendices duæ operativæ; inventarium opum humanarum, et catalogus polychrestorum.

Operativam de natura similiter in duas partes dividemus, idque ex necessitate quadam. Subjicitur enim hæc divisio divisioni priori doctrinæ speculativæ. Physica siquidem, et inquisitio causarum efficientium et materialium, producit mechanicam; at metaphysica, et inquisitio formarum, producit magiam: nam causarum finalium inquisitio sterilis est, et, tanquam virgo Deo consecrata, nihil parit. Neque nos fugit, esse et mechaniceam sæpius mere empiricam et operariam, quæ a physica non pendeat; verum hanc in historiam naturalem conjecimus; a philosophia naturali segregamus. Loquimur tantum de ea mechanica, quæ cum causis physicis conjuncta est. Verumtamen intervenit quædam mechanica, quæ nec prorsus operaria est, neque tamen philosophiam proprie attingit. Operum enim inventa omnia, quæ in hominum notitiam venerunt, aut casu occurrerunt et deinceps per manus tradita sunt; aut de industria quæsita: quæ autem intentionaliter inventa sunt; illa aut per causarum et axiomatum lucem eruta sunt; aut per extensionem quandam, vel translationem, vel compositionem inventorum priorum deprehensa; quæ magis ingeniosa quædam res est et sagax, quam philosophica. Hanc vero partem, quam neutiquam contemnimus, non multo post, cum de experientia literata inter logica tractabimus, cursim perstringemus. Enimvero mechanicam, de qua nunc agimus, tractavit Aristoteles promiscue: Hero in spiritualibus; etiam Georgius Agricola, scriptor recens, diligenter admodum in mineralibus; aliique quamplurimi in subjectis particularibus: adeo ut non habeam, quod dicam de omissis in hac parte; nisi quod mechanica promiscua, secundum exemplum Aristotelis, diligentius debuissent continuari per labores recentiorum; præsertim cum deleetu eorum mechanicorum, quorum aut causæ magis obscuræ, aut effectus magis nobiles. Verum qui in hisce insistunt, quasi oras tantum maritimas perreptant:

"——Premendo littus iniquum."

Meo siquidem judicio, vix possit aliquid in natura radicitus verti aut innovari, vel per casus aliquos fortuitos, vel per tentamenta experimentorum, vel ex luce causarum physicarum, sed solummodo per inventionem formarum. Si igitur desiderari eam partem metaphysicæ, quæ de formis agit, posuimus; sequitur, ut naturalis etiam magia, quæ ad eam est relativa, similiter desideretur. Verum hoc loco postulandum videtur, ut vocabulum istud magiæ, in deteriorem partem jam pridem acceptum, antiquo et honorifico sensui restituatur. Etenim magia apud Persas pro sapientia sublimi, et scientia consensuum rerum universalium, accipiebatur; atque etiam tres illi reges, qui ab oriente ad Christum adorandum venerunt, magorum nomine vocabantur. Nos vero eam illo in sensu intelligimus, ut sit scientia, quæ cognitionem formarum abditarum ad opera admiranda deducat; atque, quod dici solet, activa cum passivis conjungendo, magnalia naturæ manifestet. Nam quantum ad naturalem magiam (quæ in libris plurimorum volitat) credulas quasdam et superstitiosas traditiones, et observationes de symphathiis et antipathiis rerum, atque de occultis et specificis proprietatibus complectentem, cum frivolis ut plurimum experimentis, potius occultandi artificio et larva, quam re ipsa, admirandis: non erraverit sane, qui eam dixerit a scientia, quam quærimus, tantum distare, quoad veritatem naturæ, quantum libri rerum gestarum Arthuri ex Britannia, aut Hugonis Burdegalensis, et hujusmodi heroum umbratilium, differunt a Cæsaris commentariis, quoad veritatem historicam. Manifestum enim est, Cæsarem majora revera perpetrasse, quam illi de heroibus suis confingere ausi sunt; sed modis faciendi minime fabulosis. Hujusmodi doctrinas bene adumbravit fabula de Ixione; qui cum Junonis, potentiæ deæ, concubitum animo sibi designaret, cum evanida nube rem habuit; ex qua Centauros et Chimæras progenuit. Sic qui insana et impotenti cupiditate feruntur ad ea, quæ per imaginationis tantum fumos et nebulas cernere se putant, loco operum, nil aliud quam spes inanes, et deformia quædam ac monstrosa spectra, suscipient. Hujus autem magiæ naturalis, levis et degeneris, operatio super homines, similis est soporiferis quibusdam medicamentis; quæ somnum conciliant, atque insuper inter dormiendum læta et placentia somnia immittunt. Primo enim intellectum humanum in soporem conjicit; canendo proprietates specificas et virtutes occultas, et tanquam cœlitus demissas, et per traditionum susurros solummodo perdiscendas; unde homines ad veras causas eruendas et indagandas non amplius excitantur, et evigilant; sed in hujusmodi otiosis et credulis opinionibus acquiescunt: deinde vero innumera commenta grata, et qualia quis optaret maxime, instar somniorum, insinuat. Atque operæ pretium est notare, in illis scientiis, quæ nimium trahunt ex phantasia et fide (quales sunt magia ista levis, de qua nunc loquimur, alchemia, astrologia, et aliæ consimiles) media sua, et theoriam, solere esse magis monstrosa, quam finis ipse est, et actio, quo tendunt. Versio argenti, aut argenti vivi, aut alicujus alterius metalli in aurum, res creditu dura: attamen longe verisimilius est ab homine, qui ponderis, coloris flavi, malleabilis et extensibilis, fixi etiam et volatilis, naturas cognitas et perspectas habuerit; quique similiter prima mineralium semina et menstrua diligenter introspexerit, posse aurum multa et sagaci molitione tandem produci; quam quod pauca elixiris grana, paucis momentis, alia metalla in aurum vertere valeant, per activitatem ejusdem elixiris, quæ naturam scilicet perficere, et omni impedimento liberare possit. Similiter senectutis retardatio, aut gradus alicujus juventutis instauratio, non facile fidem reperint: attamen longe

verisimilius est ab homine, qui naturam arefactionis, et spirituum super solida corporis deprædationes bene norit; quique naturam assimilationis, atque alimentationis, vel perfectioris, vel pravioris, perspexerit; naturam etiam spirituum, et quasi flammæ corporis, alias ad consumendum appositæ, alias ad reparandum, notarit; posse per diætas, balnea, unctiones, medicinas proprias, accommodata etiam exercitia, et similia, vitam prolongari, aut vigorem juventutis aliqua ex parte renovari: quam quod hoc fieri possit per guttas pauculas, aut scrupulos alicujus pretiosi liquoris, aut quintessentiæ. Rursus ex astris fata elici posse, non statim, aut facile homines conzenserint: illa vero; quod hora nativitatis (quæ sæpissime ex pluribus accidentibus naturalibus, vel acceleratur, vel differtur) vitæ totius fortunam regat; aut quod hora quæstionis sit cum re ipsa, quæ quæritur, confatalis; meras nugas dixeris. Attamen tanta exercet humanum genus impotentia et intemperies, ut non solum, quæ fieri non possunt, sibi spondeant, sed etiam maxime ardua, sine molestia aut sudore, tanquam feriantes, se adipisci posse confidunt. Verum de magia hactenus, cujus et vocabulum ipsum ab infamia vindicavimus, et speciem veram a falsa et ignobili segregavimus.

Hujus vero partis, operativæ scilicet de natura, duæ sunt appendices, magni utraque pretii. Prima est, ut fiat inventarium opum humanarum, quo excipiantur, et breviter enumerentur, omnia hominum bona et fortunæ (sive sint ex fructibus et proventibus naturæ, sive artis) quæ jam habentur, et quibus homines fruuntur, adjectis iis, quæ olim innotuisse constat, nunc autem perierunt: ad hunc finem, ut qui ad nova inventa accingitur, de jam inventis et extantibus negotium sibi non faecessat. Hoc vero inventarium magis erit artificiosum, magisque etiam utile, si quæ communi hominum opinione impossibilia reputantur, in unoquoque genere adjunxeris: atque una proxima impossibilibus, quæ tamen habentur, copules; ut alterum humanam inventionem acuat, alterum quadantenus dirigat; utque ex his optativis et potentialibus activa promptius dedncantur. Secunda est, ut fiat calendarium eorum experimentorum, quæ maxime polychresta sunt, et ad aliorum inventionem faciunt et ducunt. Exempli gratia, "Experimentum artificialis conglaciationis aquæ," per glaciem cum sale nigro, ad infinita pertinet: hoc enim modum condensationis secretum revelat, quo homini nihil est fructuosius. Præsto enim est ignis ad rarefactiones; verum in condensationibus laboratur. Plurimum autem facit ad inveniendi compendium, si hujusmodi polychresta proprio catalogo excipiantur.

CAPUT SEXTUM.

De magna philosophiæ naturalis, tam speculativæ quam operativæ, appendice mathematica. quodque inter appendices potius poni debet, quam inter scientias substantivas. Partitio mathematicæ in puram et mixtam.

OPTIME Aristoteles, "physicam et mathematicam generare practicam" sive "mechanicam." Quare cum jam tam speculativam quam operativum partem doctrinæ de natura tractaverimus, locus est ut de mathematica dicamus, quæ ad utramque est scientia auxiliaris. Hæc siquidem in philosophia recepta, physicæ et metaphysicæ pars tertia adjungitur. At nobis ista retractantibus et recolentibus, si eam ut scientiam substantivam, et principalem, designare in animo esset, magis consentaneum videretur, et rei ipsius naturæ, et ordinis perspicuitati, ut constitueretur tanquam portio metaphysicæ. Quantitas enim (quæ subjectum est mathematicæ) materiæ applicata, veluti dosis naturæ est, et plurimorum effectuum in rebus naturalibus causativa: ideoque inter formas essentiales numeranda est. Figuræ autem et numerorum potentia in tantum apud antiquos valere visa est, ut Democritus "principia varietatis rerum" in "figuris atomorum" præcipue collocaverit: ac Pythagoras "naturam rerum ex numeris" constitui asseruerit. Illud interim verum est, quantitatem inter formas naturales (quales nos eas intelligimus) omnium maxime esse abstractam, et a materia separabilem: quod ipsum in causa fuit, cur et diligentius exculta, et acrius inquisita ab hominibus fuerit, quam aliæ quæcunque formæ, quæ omnes in materia magis sunt immersæ. Cum enim id hominum animis plane insitum sit (plurimo certe cum scientiarum detrimento) ut generalium quasi campis liberis, magis quam particularium sylvis et septis, delectentur, nil repertum est mathematicis gratius et jucundius, quo appetitus iste expatiandi et meditandi expleretur. Etsi autem hæc vera sint, nobis tamen, qui non tantum veritati et ordini, verum etiam usui et commodus hominum, consulimus, satius demum visum est, mathematicas, cum et in physicis, et in metaphysicis, et in mechanicis, et in magicis plurimum polleant, ut omnium appendices et copias auxiliares, designare: quod etiam quodammodo facere compellimur, propter delicias et fastum mathematicorum, qui hanc scientiam physicæ fere imperare discupiant. Nescio enim quo fato fiat, ut mathematica et logica, quæ ancillarum loco erga physicam se gerere debeant, nihilominus certitudinem suam præ ea jactantes, dominatum contra exercere præsumant. Verum de loco et dignitate hujus scientiæ minus curandum: de re ipsa videamus.

Mathematica aut pura est, aut mixta. Ad puram referuntur scientiæ, quæ circa quantitatem occupatæ sunt, a materia et axiomatibus physicis penitus abstractam. Eæ duæ sunt, geometria et arithmetica: quantitatem altera continuam, altera discretam tractans. Quæ duæ artes, magno certe cum acumine, et industria, inquisitæ et tractatæ sunt: veruntamen et Euclidis laboribus, in geometricis, nihil additum est a sequentibus, quod intervallo tot seculorum dignum sit; et doctrina de solidis, nec a veteribus, nec a modernis, pro rei usu et excellentia, instructa et aucta est. In arithmeticis autem, nec satis varia et commoda inventa sunt supputationum compendia, præsertim circa progressiones, quarum in physicis usus est non mediocris; nec algebra bene consummata est; atque arithmetica illa Pythagorica et mystica, quæ ex Proclo et reliquiis quibusdam Euclidis cœpit instaurari, expatiatio quædam speculationis est. Hoc enim habet ingenium humanum, ut

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cum ad solida non sufficiat, in supervacaneis se atterat. Mixta habet pro subjecto axiomata et portiones physicas: quantitatem autem considerat, quatenus est ad ea elucidanda, et demonstranda, et actuanda, auxiliaris. Multæ siquidem naturæ partes, nec satis subtiliter comprehendi, nec satis perspicue demonstrari, nec satis dextre et certo ad usum accommodari possint, sine ope et interventu mathematicæ. Cujus generis sunt perspectiva, musica, astronomia, cosmographia, architectura, machinaria, et nonnullæ aliæ. Cæterum in mathematicis mixtis integras aliquas portiones desideratas jam non reperio, sed multas in posterum prædico, si homines non ferientur. Prout enim physica, majora indies incrementa capiet, et nova axiomata edueet; eo mathematicæ opera nova in multis indigebit, et plures demum fient mathematicæ mixtæ.

Jam autem doctrinam de natura pertransivimus, et desiderata in ipsa notavimus. Qua in re si a priscis et receptis opinionibus discesserimus, eoque nomine contradicendi ansam cuiquam præbuerimus; quod ad nos attinet, ut dissentiendi studium longe a nobis abest, ita etiam et contendendi consilium. Si hæc vera sunt;

"Non canimus surdis, respondent omnia sylvæ:"

vox naturæ ingeminabit, etsi vox hominum reclamet. Quemadmodum autem Alexander Borgia dicere solebat, de expeditione Gallorum Neopolitana, "Eos venisse cum creta in manibus, quo diversoria sua notarent, non enim armis, ut perrumperent:" sic nobis magis cordi est pacificus veritatis ingressus; ubi quasi creta consignentur animi, qui tantam hospitem excipere possint; quam qui pugnax est, viamque sibi per contentiones, et lites sternat. Absolutis igitur duabus partibus philosophiæ, de Numine et de natura, restat tertia de homine.

FRANCISCI

BARONIS DE VERULAMIO, VICE-COMITIS SANCTI ALBANI,

DE

DIGNITATE ET AUGMENTIS SCIENTIARUM.

LIBER QUARTUS.

AD REGEM SUUM.

CAPUT PRIMUM.

Partitio doctrinæ de homine, in philosophiam humanitatis, et civilem. Partitio philosophiæ humanitatis, in doctrinam circa corpus hominis, et doctrinam circa animam hominis. Constitutio unius doctrinæ generalis de natura, sive de statu hominis. Partitio doctrinæ de statu hominis, in doctrinam de persona hominis, et de fœdere animi et corporis. Partitio doctrinæ de persona hominis, in doctrinam de miseriis hominis, et de prærogativis. Partitio doctrinæ de fœdere, in doctrinam de indicationibus, et de impressionibus. Assignatio physiognomiæ et interpretationis somniorum naturalium, doctrinæ de indicationibus.

Siquis me (rex optime) ob aliquid eorum, quæ proposui, aut deinceps proponam, impetat aut vulneret (præterquam quod intra præsidia majestatis tuæ tutus esse debeam) sciat is, se contra morem et disciplinam militiæ facere. Ego enim buccinator tantum, pugnam non ineo; unus fortasse ex iis, de quibus Homerus:

Χαίρετε, κήρυκες, Διὸς ἄγγελοι ἠδὲ καὶ ἀνδρῶν.

Hi enim inter hostes, etiam infensissimos et acerbissimos, ultro citroque inviolati ubique commeabant. Neque vero nostra buccina homines advocat et excitat, ut se mutuo contradictionibus proscindant, aut secum ipsi prœlientur et digladientur; sed potius ut pace inter ipsos facta, conjunctis viribus, se adversus naturam rerum comparent, ejusque edita et munita capiant et expugnent, atque fines imperii humani (quantum Deus Opt. Max. pro bonitate sua indulserit) proferant.

Veniamus nunc ad eam scientiam, ad quam nos ducit oraculum antiquum: nempe ad scientiam nostri. Cui, quo magis nostra intersit, eo incumbendum est diligentius. Hæc scientia homini pro fine est scientiarum; at naturæ ipsius portio tantum. Atque hoc pro regula ponatur generali; quod omnes scientiarum partitiones ita intelligantur et adhibeantur, ut scientias potius signent aut distinguant, quam secent et divellant, ut perpetuo evitetur solutio continuitatis in scientiis. Hujus etenim contrarium particulares scientias steriles reddidit, inanes et erroneas, dum a fonte et fomite communi non aluntur,

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sustentantur, et rectificantur. Sic videmus Ciceronem oratorem, de Socrate et ejus schola conquerentem, quod hic primus philosophiam a rhetorica disjunxerit, unde facta sit rhetorica ars loquax et inanis. Constat similiter sententiam Copernici de rotatione terræ (quæ nunc quoque invaluit) quia phænomenis non repugnat, ab astronomicis principiis non posse revinci; a naturalis tamen philosophiæ principiis, recte positis, posse. Artem denique medicam videmus, si a naturali philosophia destituatur, empiricorum praxi haud multum præstare. Hoc igitur posito, accedamus ad doctrinam de homine. Ea duplex est: aut enim contemplatur hominem segregatum, aut congregatum atque in societate. Alteram harum philosophiam humanitatis; alteram civilem vocamus. Philosophia humanitatis sive humana ex partibus similibus illis, ex quibus homo ipse, consistit: nempe ex scientiis, quæ circa corpus; et ex scientiis, quæ circa animam versantur.

Verum priusquam distributionis partieulares persequamur, constituamus scientiam unam generalem, de natura et statu hominis: digna enim certe res est, ut emancipetur hæc scientia, et in scientiam seorsum redigatur. Conficitur autem illa ex iis rebus, quæ sunt tam corpori quam animæ communes. Rursus, hæc scientia de natura et statu hominis, distribui potest in duas partes; attribuendo alteri naturam hominis indivisam, alteri vinculum ipsum animæ et corporis: quarum primam doctrinam de persona hominis, secundam doctrinam de fœdere vocabimus. Liquet autem hæc omnia, cum sint communia et mixta, primæ illi divisioni scientiarum circa corpus, et scientiarum circa animam versantium, assignari non potuisse.

Doctrina de persona hominis duas res præcipue complectitur; contemplationes scilicet de miseriis humani generis; et de ejusdem prærogativis sive excellentiis. Atque deploratio humanarum ærumnarum eleganter et copiose a compluribus adornata est, tam in scriptis philosophicis, quam theologicis: estque res et dulcis simul et salubris.

At illa altera de prærogativis, digna visa res nobis, quæ inter desiderata proponatur. Elegantissime certe Pindarus (ut plerunque solet) inter laudandum Hieronem ait, "Eum decerpere summitates ex omnibus virtutibus." Equidem plurimum ad magnanimitatem et humanum decus conferre posse putarem, si ultimitates (ut loquuntur scholastici) sive *summitates* (ut Pindarus) humanæ naturæ colligerentur; præcipue ex historiæ fide. Illud est quid ultimum et supremum fuerit, quo unqnam humana natura per se ascenderit, in singulis et corporis et animi dotibus. Quanta res, quæ de Cæsare narratur, quod amanuensibus quinque simul dictare suffecerit? Quin et exercitationes illæ antiquorum rhetorum, Protagoræ, Gorgiæ; etiam philosophorum, Callisthenis, Posidonii, Carneadis, ut de quovis themate in utramque partem ex tempore disserere eleganter et copiose potuerint; ingenii humani vires haod parum nobilitant. Res autem usu minor, at ostentatione et facultate fortasse major, qnam de Arehia magistro suo memorat Cicero: "eum magnum numerum optimorum versuum de iis rebus, quæ tum aggerentia, potuisse dicere ex tempore." Tot millibus hominum nomina reddere potuisse Cyrum aut Scipionem, magnum memoriæ decus. At virtutum moralium palmæ non minus celebres, quam intellectualium. Quantam rem in exercitio patientiæ exhibet historia illa vulgata de Anaxarcho, qui quæstioni et tormentis subjectus, linguam (indicii spem) dentibus præscidit, et in os tyranni exspuit? Neque tolerantia cedit (licet dignitate plurimum) quod seculo nostro accidit in Burgundo quodam, principis Arausionensis interfectore; is virgis ferreis flagellatus, et forcipibus ignitis laceratus, nullum prorsus gemitum edidit: quinetiam cum forte fractum aliquid desuper in caput astantis cujuspiam incideret, ustulatus jam nebulo, et in mediis tormentis, risit; qui tamen paulo ante, cum cincinni capillitii, quos gestabat, tonderentur, fleverat. Animi quoque mira serenitas et securitas, sub ipsum tempus mortis, in pluribus enituit. Qualis fuit illa centurionis apud Tacitum: is cum a milite, qui eum ex imperato occisurus esset, juberetur, ut cervices porrigeret fortiter, "Utinam," inquit ille, "tu tam fortiter feias." At Joannes dux Saxoniæ, cum inter ludum scaechorum diploma, quo nex ejus in posterum diem mandabatur, allatum esset, astantem quendam ad se vocavit, et subridens: "Specta," inquit, "num non potiores partes ludi hujus teneam. Iste enim" (ad collusorem innuens) "me mortuo, jactabit, suas potiores partes fuisse." Noster vero Morus, Angliæ cancellarius, cum pridie quo moriturus esset, tonsor ad enm veniret (missus scilicet ad hoc, ne forte capillitio promisso esset apud populum in spectaculo miserabilior) eumque interrogaret, num tonderi placeret; renuit, atque ad tonsorem versus: "Mihi," inquit, "cum rege de capite meo controversia est; antequam vero illa terminata fuerit, aumptus in illud non faciam." Quin et idem, sub ipsum mortis articulum, postquam jam caput in truncum fatalem reclinasset, rursus se paululum erexit, et barba, quæ ei erat promissior, leniter amota, "At certe hæc," inquit, "non offendit regem." Verum, ne hoc loco longiores simus, satis patet quid velimus, nempe ut miracula naturæ humanæ, viresque ejus et virtutes ultimæ tam animi quam corporis, in volumen aliquod colligantur; quod fuerit instar fastorum de humanis triumphis. Qua in re institutum Valerii Maximi et C. Plinii probamus, diligentiam et judicium eorum requirimus.

Quantum ad doctrinam de fœdere, sive de communi vinculo animæ et corporis; ea in duas partes tribui possit. Quemadmodum enim inter fœderatos intercedunt, et mutua rerum suarum communicatio, et mutua officia; sic fœdus istud animæ et corporis duabus similiter rebus continetur: nimirum ut describatur quomodo hæc duo (anima scilicet et corpus) se in vicem detegant; et quomodo invicem in se agant; notitia sive indicatione, et impressione. Harum prior (descriptio scilicet, qualis possit haberi notitia de anima ex habitu corporis; aut de corpore ex accidentibus animi) duas nobis peperit artes, utramque prædictionis; inquisitionibus alteram Aristotelis, alteram Hippocratis decoratam. Quanquam autem tempora recentiora has artes superstitiosis et phantasticis mixturis polluerint; repurgatæ tamen, ac in integrum restitutæ, et fundamentum habent in natura solidum, et fructum edunt ad vitam communem utilem. Prima est physiognomia, qnæ per

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corporis lineamenta animi indicat propensiones; altera somniorum naturalium interpretatio, quæ corporis statum et dispositionem ex animi agitationibus detegit. In harum priore partem nonnullam desiderari perspicio. Siquidem Aristoteles ingeniose et solerter corporis fabricam, dum quiescit, tractavit; eandem in motu (nimirum gestus corporis) omisit; qui tamen non minus artis observationibus subjiciuntur, et majoris sunt usus. Etenim lineamenta corporis, animi inclinationes et propensiones generales ostendunt; oris autem et partium motus et gestus, insuper aditus, et tempora, et præsentis dispositionis et voluntatis signa, declarant. Ut enim aptissimis atque elegantissimis majestatis tuæ verbis utar, "Lingua aures ferit, gestus vero oculos alloquitur." Hoc vero bene norunt veteratores complures, et astuti homines, quorum oculi in aliorum vultu et gestibus habitant; idque in commodum suum trahunt; utpote in quo facultatis et prudentiæ suæ pars maxima vertatur. Nec sane negari potest, hoc ipsum simulationes in altero indicem esse mirificum, et monere homines optime de electionibus temporum et opportunitatum adeundi personas; quæ civilis prudentiæ pars est non parva. Nemo autem putet hujusmodi solertiam aliquid quidem valere circa homines individuos, sub regula autem non cadere: nam ad unum fere modum omnes ridemus, et ploramus, et erubescimus, et frontem contrahimus; et sic (ut plurimum) de motibus subtilioribus. Si quis autem hic chiromantiæ meminet, sciat rem esse prorsus vanam; et in hujusmodi sermonibus, quos tractamus, nec dignam quidem quæ nominetur. Quod vero ad somniorum naturalium interpretationem attinet: res est quorundam laboribus pertractata, sed plurimis inceptiis scatens. Illud tantum in præsenti innuo, basim illam huic rei, quæ maxime est solida, non substerni. Ea hujusmodi est; ubi idem fit ab interna causa, quod fieri quoque solet ab externa, actus ille externus transit in somnium. Similis et stomachi oppressio, ex crasso vapore, atque incubitu ponderis externi: itaque qui incubo laborant, pondus sibi superimponi, magno cum apparatu circumstantiarum, somniant. Similis viscerum pensilitas ex fluctuum agitatione in mari, et ex flatu circa præcordia collecto: itaque hypochondriaci sæpius navigationes et agitationes super aquas somniant. Sunt et innumera id genus.

Posterior pars doctrinæ fœderis (quam impressionem nominavimus) in artem nondum redacta est, sed obiter tantum, et carptim, inter alios tractatus aliquando intervenit. Illa eandem antistrophen cum priori habet. Quippe duo considerat: Aut quomodo, et quousque humores et temperamentum corporis immutent animam, in eamque agant: Aut rursus, quomodo, et quousque animæ passiones, vel apprehensiones, immutent corpus et in illud agant. Horum prius in re medica interdum tractari videmus; at id ipsum se miris modis religionibus inseruit. Pharmaca enim præscribunt medici, quæ morbis animæ persanandis inserviant, ut in curationibus maniæ et melancholiæ: quinetiam medicinas porrigunt ad animum exhilarandum, ad eor muniendum, atque inde fortitudinem augendam, ad ingenium acuendum, ad memoriam roborandam, et similia. At diætæ, et delectus ciborum et potuum, et ablutiones, et aliæ circa corpus observantiæ, in secta Pythagoreorum, et in hæresi Manichæorum, et in lege Mahometi, omnem modum superant. Ordinationes quoque legis ceremonialis, sanguinis et adipis esum prohibentes, ac animalia munda ab immundis distinguentes (quatenus ad cibi usum) et plurimæ sunt et præcisæ. Imo Christiana fides ipsa (quamvis a ceremoniarum nube libera et serena) usum tamen retinet jejuniorum, abstinentiarum, et aliarum rerum, quæ ad corporis macerationem et humiliationem spectant, tanquam rerum non mere ritualium, sed etiam fructuosarum. Atqui radix omnium hujusmodi præceptionum, præter ipsam ceremoniam et exercitium obedientiæ, in hac re consistit, de qua loquimur: nimirum quod anima compatiatur corpori. Si quis autem judicio infirmior existimet, istas corporis in animam impressiones, aut immortalitatem animæ in dubium revocare, aut imperio animæ in corpus derogare; levi dubitationi leve responsum sufficerit. Exempla petat, vel ab infante in utero matris; qui simul cum matris affectibus compatitur, et tamen e corpore matris suo tempore excluditur: vel a monarchis, qui, licet potentes, a servorum impetu quandoque flectuntur, salva interim majestate sua regia.

Jam quod ad partem reciprocam, (de anima, et affectibus ejus in corpus agentibus) illa quoque in medicina locum invenit. Nemo enim medicus est paulo prudentior, quin accidentia animi, ut rem maximi ad sanationes suas momenti, quæque omnia alia remedia plurimum vel adjuvet, vel impediat, consideret et tractet. At aliud quippiam, quod huc pertinet, parce admodum, nec pro rei vel subtilitate vel utilitate inquisitum est; quatenus scilicet (missis affectibus) ipsa imaginatio animæ, vel cogitatio perquam fixa, et veluti in fidem quandam exaltata, valeat ad immutandum corpus imaginantis? Quamvis enim vim habeat ad nocendum manifestam, haud tamen inde sequitur pari potentia præditum esse ad subveniendum. Non magis hercle, quam si quis concluserit, quoniam reperitur aliquis aër ita pestilens, ut subito interimat; debere quoque esse aliquem aërem ita salubrem, ut decumbentem subito restituat. Atque hæc inquisitio nobilis profecto esset usus; verum (ut ait Socrates) natatore Delio indiget, quia mergitur in profundo. Rursus inter has doctrinas de fœdere, sive consensibus animæ et corporis, non alia fuerit magis necessaria, quam illa disquisitio de sedibus propriis et domiciliis, quæ singulæ animæ facultates habent in corpore, ejusque organis. Quod genus scientiæ qui sectati fuerint, non desuat; sed quæ habentur in plerisque, aut controversa sunt, aut leviter inquisita; ut majori diligentia et acumine opus sit. Nam sententia introducta a Platone; qua intellectus in cerebro, tanquam in arce, collocatus est; animositas (quam ille satis imperite iracundiam vocavit, cum tumori et superbiæ sit propior) in corde; concupiscentia autem et sensualitas in jecinore; neque prorsus contemnenda est, neque cupide recipienda. Rursus nec collocatio facultatum illarum intellectualium (phantasiæ, rationis, memoriæ) secundum ventriculos cerebri, erroris expers est. Atque doctrinam de natura

hominis indivisa, ac etiam de fœdere animi et corporis, explicavimus.

CAPUT SECUNDUM.

Partitio doctrinæ circa corpus hominis in medicinam, cosmeticam, athleticam, et voluptariam. Partitio medicinæ in officia tria, viz. in conservationem sanitatis, curationem morborum, et prolongationem vitæ: quodque pars postrema de prolongatione vitæ disjungi debeat a duabus reliquis.

Doctrina circa corpus hominis eandem recipit divisionem, quam bona corporis ipsius, quibus inservit. Bona corporis humani quatuor sunt; sanitas, forma sive pulchritudo, vires, voluptas. Totidem igitur scientiæ; medicina, cosmetica, athletica, et voluptaria, quam Taeitus appellat "eruditum luxum."

Medicina ars in primis nobilis, et ex generosissima prosapia accundum poëtas. Illi enim introduxerunt Apollinem primarium medicinæ deum; cui filium dederunt Æsculapium, deum itidem, et medicinæ professorem: quippe cum sol in naturalibus sit vitæ auctor et fons, medicus ejusdem conservator, et tanquam scaturigo altera. At decus longe illustrius accedit medicinæ ex operibus Servatoris, qui et animæ et corporis medicus fuit; et sicut animam doctrinæ suæ cœlestis, ita corpus miraculorum suorum, objectum veluti proprium constituit. Nusquam enim legimus miraculum aliquod ab eo patratum circa honores, aut pecunias (præter unicum, quo tributum redderetur Cæsari) sed tantum circa corpus humanum, aut conservandum, aut sustentandum, aut persanandum.

Subjectum istud medicinæ (corpus nimirum humanum) ex omnibus, quæ natura procreavit, maxime est capax remedii; sed vicissim illud remedium maxime est obnoxium errori. Eadem namque subjecti subtilitas et varietas, ut magnam medendi facultatem præbet, sic magnam etiam aberrandi facilitatem. Quocirca quemadmodum ars ista (præsertim quo nunc habetur modo) inter præcipue conjecturales; ita inquisitio ejus reponenda est inter summe arduas et accuratas. Neque propterea cum Paracelso et alchemistis ita desipimus, ut putemus inveniri in corpore humano, quæ singulis universitatis rerum speciebus (stellis, mineralibus, et aliis) respondeant, sicut illi fabulantur, leviter et crassa Minerva traducentes emblema illud veterum (quod homo esset microcosmus, sive epitome totius mundi) ad hoc commentum suum. Verum nihilominus huc res redit, ut (quod occepimus dicere) non inveniatur inter corpora naturalia aliquod tam multipliciter compositum, quam corpus humanum. Videmus enim herbas et plantas ex terra et aqua nutriri; animalia ex herbis et fructibus; hominem vero ex carnibus ipsorum animalium (quadrupedum, avium, piscium) etiam ex herbis, granis, fructibus, succis, et liquoribus variis, non sine multiplici commixtione, conditura, et præparatione horum corporum, priusquam homini sint in cibum. Adde quod animalibus vivendi modus sit simplicior, affectusque, qui in corpus agant, pauciores, et ad unum fere modum operantes; ubi homo locis habitationum, exercitationibus, affectibus, somno, et vigiliis, vices prope infinitas variarum mutationum subit. Usque adeo verum est unam, inter res cæteras, corporis humani massam maxime fermentatam, et ex plurimis coagmentatam esse. At anima contra substantiarum est simplicissima, ut non male cecinerit ille:

> "— Purumque reliquit
> Æthereum sensum, atque auraï simplicis ignem."

Unde minime est mirandum, animam sic collocatam, requiem non invenire, juxta axioma illud, "Motum rerum extra locum esse rapidum, placidum in loco." Verum ut ad rem redeamus; varia ista et subtilis corporis humani compositio et fabrica effecit, ut sit instar organi musici operosi et exquisiti, quod harmonia sua facile excidit. Quare apud poëtas, summa ratione, musica cum medicina in Apolline conjungitur; quia similis fere sit utriusque artis genius; atque in eo consistat plane medici officium, ut sciat humani corporis lyram ita tendere et pulsare, ut reddatur concentus minime discors et insuavis. Ergo demum ista subjecti inconstantia et varietas artem reddidit magis conjecturalem: ars autem tam conjecturalis cum sit, locum ampliorem dedit non solum errori, verum etiam imposturæ. Siquidem omnes aliæ propemodum artes et scientiæ virtute sua et functione, non successu aut opere, judicantur. Advocatum ipsa agendi et dicendi facultas, non exitus causæ, commendat; gubernator navis clavi tenendi peritia, non expeditionis fortuna, se probat. At medicus, et fortasse politicus, vix habent actiones aliquas proprias, quibus specimen artis et virtutis suæ liquido exhibeant; sed ab eventu præcipue honorem ant dedecus reportant, iniquissimo prorsus judicio. Quotus enim quisque novit, ægroto mortuo aut restituto, item republica stante, vel labante, utrum sit res casus, an consilii? Fit itaque sæpissime, ut impostor palmam, virtus censuram referat. Quin ea est hominum infirmitas et credulitas, ut sæpenumero agyrtam, aut sagam docto medico præponant. Quare poëtæ oculati plane et perspicaces fuisse videntur; cum Æsculapio Circem sororem dederunt, utrumque e Sole prognatum; sicut habetur in versibus, de Æsculapio Phœbigena:

> "Ille repertorem medicinæ talis, et artis,
> Fulmine Phœbigenam Stygias detrusit ad undas."

Et similiter de Circe, Solis filia:

> "Dives inaccessis ubi Solis filia lucis
> Urit odoratam nocturna in lumina cedrum."

Omnibus enim temporibus, fama et opinione vulgi, sagæ, et aniculæ, et impostores, medicorum quodammodo rivales fuere; et de curationum celebritate cum iisdem fere certarunt. Ex hoc die, sodes, quid sequitur? Nempe ut medici ita secum, quemadmodum Salomon in re graviori; "Si unus et stulti et meus eventus erit, quid mihi prodest, quod majorem sapientiæ dedi operam?" Equidem medicis minus succenseo, si sæpenumero vacent alicui alteri studio, quod adamant magis, quam arti suæ propriæ. Invenies etenim inter eos, poëtas, antiquarios, criticos, rhetores, politicos, theologos, atque in iis artibus magis, quam in professione propria, eruditos. Neque hoc fit, ut arbitror, quia (ut quidam declamator

contra scientias medicis objicit) habeant quæ sibi obversentur objecta tam fœda et tristia, ut animum ad alia abducere iis omnino sit opus; (nam qui homines sint, "Nihil humani a se alienum putent") sed ob hoc ipsum, de quo nunc agimus; nempe quod arbitrentur, parum ipsis interesse, vel ad existimationem, vel ad luerum, utrum artis suæ mediocritatem, an perfectionem in eo majorem assequantur. Morbi enim tædia, vitæ dulcedo, spei fallacia, et amicorum commendatio, efficiunt, ut homines facile in medicis qualibuscunque fiducia collocent. Verum si quis hæc attentius perpendat, ea potius ad culpam medicorum, quam ad culpæ excusationem spectant: neque enim spem abjicere, sed vires potius intendere debuerant. Nam si cui placet observationem expergefacere suam, et paulatim circumspicere, etiam ex exemplis obviis et familiaribus facile deprehendet, quantum obtinent imperii intellectus subtilitas et acumen, in varietatem sive materiæ, sive formæ rerum. Nil magis varium, quam hominum facies et vultus; eorum tamen discrimina infinita retinet memoria: imo pictor ex pauculis colorum testis, acie oculi usus, et vi phantasiæ, et manus constantia, omnium facies, qui sunt, fuerunt, atque etiam (si coram repræsentarentur) qui futuri sunt, penicillo imitari ac describere posset. Humana voce nil magis varium; hujus tamen discrimina in singulis personis facile internoscimus: quinetiam non desunt mimiques et pantomimi quidam, qui, quotquot libuerit, reddere sciunt, et ad vivum exprimere. Nil magis varium, quam soni articulati, verba scilicet: via tamen inita est ea reducendi ad paucas literas alphabeti. Atque illud verissimum est, non ex eo, quod mens humana sit minus subtilis aut capax, perplexitates et acatalepsias in scientiis plerunque provenire; sed ex eo potius, quod objectum nimis in remoto collocatum sit. Sicut enim sensus, procul ab objecto dissitus, plurimum fallitur; debite appropinquatus, non multum errat; ita fit in intellectu. Solent autem homines naturam, tanquam ex prærulta turri, et a longe despicere, et circa generalia nimium occupari; quando, si descendere placuerit, et ad particularia accedere, resque ipsas attentius et diligentius inspicere, magis vera et utilis fieret comprehensio. Itaque hujus incommodi remedium, non in eo solum est, ut organum ipsum vel acuant, vel roborent, sed simul ut ad objectum propius accedant. Ideoque dubitandum non est, quin si medici, missis paulisper istis generalibus, naturæ obviam iræ vellent, compotes ejus fierent, de quo ait poëta:

> "Et quoniam variant morbi, variabimus artes;
> Mille mali species, mille salutis erunt."

Quod eo magis facere debent, quia philosophiæ ipsæ, quibus innituntur medici, sive methodici, sive chemici (medicina autem in philosophia non fundato, res infirma est) parvi revera sunt. Quare si nimis generalia (licet vera forent) hoc vitium habeant, quod non bene homines ad actionem deducant; certe majus est periculum ab illis generalibus, quæ in se falsa sunt; atque, loco deducendi, seducunt.

Medicina igitur (uti perspeximus) adhuc taliter comparata est, ut fuerit magis ostentata, quam elaborata: etiam magis elaborata, quam amplificata; cum labores in eam insumpti, potius in circulo, quam in progressu, se exercuerint. Plurima enim in ea video a scriptoribus iterata, addita pauca. Eam in tres partes dividemus, quæ tria ejus officia nominabimus. Primum est conservatio sanitatis, secundum curatio morborum, tertium prolongatio vitæ. At istud postremum, non videntur medici, tanquam partem principalem artis suæ agnovisse, verum idem reliquis duobus satis imperite immiscuisse. Putant enim si propulsentur morbi, antequam ingruant, et curentur postquam invaserint, prolongationem vitæ ultro sequi. Quod licet minime dubium sit, tamen parum acute prospiciunt, horum utrumque ad morbos tantum pertinere, et ad eam solummodo vitæ prolongationem, quæ a morbis abbreviatur et intercipitur: atqui filum ipsum vitæ prodneere, ac mortem, per resolutionem simplicem, et atrophiam senilem, sensim obrepentem, ad tempus summovere, argumentum est, quod nemo ex medicis pro dignitate tractavit. Neque vero subeat animos hominum ille scrupulus, ac si hæc res, fato et divinæ providentiæ commissa, in artis officium et munus jam primum a nobis revocaretur. Providentia enim procul dubio mortes quascunque, sive ex violentia, sive ex morbis, sive ex decursu ætatis, pariter regit: neque tamen ideo præventiones et remedia excludit. Ars autem, et industria humana, naturæ et fato non imperant, sed subministrant. Verum de hac parte paulo post dicemus; hæc tantum interea præfati, ne quis tertium istud officium medicinæ cum duobus prioribus (quod fere adhuc factum est) imperite confundat.

Quod ad officium tuendæ sanitatis attinet (ex officiis prædictis medicinæ primum) multi de eo scripserunt, cum in aliis rebus satis imperite, tum nimium (ut arbitramur) delectui eiborum, minus, quam par est, quantitati eorum tribuentes. Quin et in quantitate ipsa, tanquam philosophi morales, mediocritatem nimis laudarunt: cum et jejunia in consuetudinem versa, et victus liberalis, cui quis assueverit, melius sanitatem tueantur, quam istæ mediocritates, quæ naturam ignavam fere reddunt, neque excessus, neque indigentiæ, cum opus fuerit, patientem. Exercitationum autem species, quæ in sanitate tuenda plurimum pollent, nemo ex medicis bene distinxit, aut annotavit; cum vix inveniatur aliqua inclinatio in morbum, quæ non exercitatione quadam propria corrigi possit. Morbis renum globorum lusus convenit, pulmonum sagittatio, stomachi deambulatio et gestatio, atque aliis aliæ. Verum cum hæc pars, de valetudinis conservatione, secundum totum tractata sit, defectus minores persequi non est nostri instituti.

Quod vero ad curationem morborum attinet, illa demum pars est medicinæ, in qua plurimum laboris in sumptum est, licet fructu satis tenui. Continet autem doctrinam de morbis, quibus corpus humanum subjicitur, una cum eorundem causis, symptomatibus, et medelis. In hoc secundo officio medicinæ multa sunt, quæ desiderantur: ex his pauca, sed maxime insignia, proponemus, quæ enumerasse satis duxerimus, absque aliqua ordinis aut methodi lege.

Primum est, intermissio diligentiæ illius Hippocratis, utilis admodum et accuratæ, cui moris erat, narrativam componere casuum circa ægrotos specialium; referendo qualis fuisset morbi natura, qualis medicatio, qualis eventus. Atque hujus rei nactis nobis jam exempluni, tam proprium atque insigne, in eo scilicet viro, qui tanquam parens artis habitus est, minime opus erit exemplum aliquod forinsecum ab alienis artibus petere; veluti a prudentia jurisconsultorum, quibus nihil antiquius, quam illustriores casus, et novas decisiones, scriptis mandare; quo melius se ad futuros casus muniant et instruant. Istam proinde continuationem medicinalium narrationum desiderari video; præsertim in unum corpus cum diligentia et judicio digestam: quam tamen non intelligo ita fieri debere amplam, ut plane vulgata, et quæ quotidie obveniant, excipiat (id enim infinitum quiddam esset, neque ad rem) nec rursus tam angustam, ut solummodo mirabilia et stupenda (id quod a nonnullis factum est) complectatur. Multa enim in modo rei, et circumstantiis ejus, nova sunt, quæ in genere ipso nova non sunt: qui autem ad observandum adjiciet animum, ei etiam, in rebus, quæ vulgares videntur, multa observatu digna occurrent.

Item in disquisitionibus anatomicis fieri solet, ut quæ corpori humano in universum competant, ea diligentissime, usque ad curiositatem, et in minimis quibusque, notentur: at circa varietatem, quæ in diversis corporibus reperitur, medicorum diligentia fatiscit. Idcoque anatomiam simplicem luculentissime tractari assero, anatomiam comparatam desiderari statuo. Partes enim singulas recte perscrutantur homines, earumque consistentias, figuras, situs: sed illarum partium diversam in diversis hominibus figuram et conditionem minus observant. Atque hujus omissionis causam non aliam esse arbitramur, quam quod ad primam inquisitionem inspectio unius aut alterius anatomiæ sufficere possit; ad posteriorem vero (quæ comparativa est, et casum recipit) necesse est, ut plurimarum dissectionum attenta et perspicax observatio adhibeatur. Prior etiam res est, in qua homines docti, in prælectionibus suis et in cœtu astantium, se jactare possunt: at secunda ea est, quæ tacita et diutina experientia tantum acquiri potest. Illud interea minime dubium est, quod internarum partium figura et structura parum admodum externorum membrorum varietati et lineamentis cedat; quodque corda, aut jecinora, aut ventriculi, tam dissimilia sint in hominibus, quam aut frontes, aut nasi, aut aures. Atque in his ipsis differentiis partium internarum reperiuntur sæpius causæ continentes multorum morborum: quod non attendentes medici, humores interdum minime delinquentes criminantur; cum ipsa mechanica partis alicujus fabrica in culpa sit. In quorum morborum cura, opera luditur, si adhibeantur medicinæ alterantes, (quia res alterationem non recipit,) sed emendanda res est, et accommodanda, seu palliandæ, per victus regimen et medicinas familiares. Similiter, ad anatomiam comparatam pertinent accuratæ observationes, tam humorum omnigenum, quam vestigiorum et impressionum morborum, in corporibus variis dissectis. Etenim humores in anatomiis, tanquam purgamenta et fastidia, fere prætermitti solent, cum tamen in primis necessarium sit notare, quales et quam multiplices sint humorum differentium species (non nimium in hac re tribuendo divisionibus eorum receptis) qui in corpore humano aliquando inveniantur; et in quibus cavitatibus et receptaculis, quilibet ipsorum sedes et nidulos suos figere potissimum soleat; quoque juvamento aut damno; atque his similia. Itidem vestigia, et impressiones morborum, et interiorum partium ab iis læsiones et devastationes, in diversis anatomiis, cum diligentia notanda; nempe apostemata, ulcera, solutiones continuitatis, putrefactiones, exesiones, consumptiones; rursus contractiones, extensiones, convulsiones, luxationes, dislocationes, obstructiones, repletiones, tumores, una cum omnibus materiis præternaturalibus, quæ in corpore humano inveniuntur (veluti calculis, carnositatibus, tuberibus, vermibus, et hujusmodi) hæc (inquam) omnia, et his similia, per eam, quam diximus, anatomiam comparatam, et multorum medicorum experimenta in unum collata, magna cum cura perquiri et componi debent. At varietas ista accidentium in anatomicis aut perfunctorie tractatur, aut silentio præteritur.

De illo vero altero defectu circa anatomiam (nempe quod non fieri consueverit in corporibus vivis) quid attinet dicere? Res enim hæc odiosa, et barbara, et a Celso recte damnata. Neque tamen illud minus verum est (quod annotatum fuit a priscis) poros complures, et meatus, et pertusiones, quæ sunt ex subtilioribus, in anatomicis dissectionibus non comparere; quippe quæ in cadaveribus occluduntur et latent; cum in viventibus dilatentur, et possint esse conspicui. Itaque, ut et usui consulatur simul et humanitati, non est omnino rejicienda anatomia vivorum, neque ad fortuitas chirurgicorum inspectiones (quod Celsus fecit) remittenda: cum hoc ipsum bene expediri possit per dissectionem brutorum vivorum, quæ, non obstante suarum partium dissimilitudine ab humanis, huic inquisitioni, adhibito judicio, satisfacere possint.

Item in inquisitione illorum de morbis, inveniunt morbos complures, quos insanabiles decernunt, alios jam inde a principio morborum, alios post talem quampiam periodum: ita ut L. Syllæ et triumvirorum proscriptiones res nihili fuerint præ medicorum proscriptionibus, per quas tot homines iniquissimis edictis morti dedunt; quorum tamen plurimi minore cum difficultate evadunt, quam illi olim inter proscriptiones Romanas. Neque igitur dubitabo inter desiderata reponere opus aliquod de curationibus morborum, qui habentur pro insanabilibus; ut evocentur et excitentur medici aliqui egregii et magnanimi, qui huic operi, quantum largitur natura rerum, incumbant; quando hoc ipsum, "Istos morbos pronunciare insanabiles," neglectum et incuriam veluti lege sanciat, et ignorantiam ab infamia eximat.

Item ut paulo ulterius insistam: etiam plane censeo ad officium medici pertinere, non tantum ut sanitatem restituat; verum etiam ut dolores et cruciatus morborum mitiget: neque id ipsum solummodo, cum illa mitigatio doloris, veluti symptomatis periculosi, ad convalescentiam faciat et conducat; imo vero cum abjecta prorsus omni sanitatis spe, excessum tantum præbeat e vita magis lenem et placidum.

Siquidem non parva est felicitatis pars (quam sibi tantopere precari solebat Augustus Cæsar) illa euthanasia; quæ etiam observata est in excessu Antonini Pii, quando non tam mori videretur, quam dulci et alto sopore excipi. Scribitur etiam de Epicuro, quod hoc ipsum sibi procuraverit; cum enim morbus ejus haberetur pro desperato, ventriculum et sensus, meri largiore haustu et ingurgitatione obruit. Unde illud in epigrammate:

"—Hinc Stygias ebrius hausit aquas,"

vino scilicet Stygii laticis amaritudinem sustulit. At nostris temporibus, medicis quasi religio est, ægrotis, postquam deplorati sint, assidere; ubi meo judicio, si officio suo, atque adeo humanitati ipsi deesse nolint, et artem ediscere et diligentiam præstare deberent, qua animam agentes facilius et mitius e vita demigrent. Hanc autem partem, inquisitionem de euthanasia exteriori (ad differentiam ejus euthanasiæ, quæ animæ præparationem respicit) appellamus; eamque inter desiderata reponimus.

Item in curationibus morborum illud generaliter desiderari reperio; quod medici hujusce ætatis, licet generales intentiones curationum non male persequantur, particulares tamen medicinas, quæ ad curationes morborum singulorum proprietate quadam spectant, aut non bene norunt, aut non religiose observant. Nam medici traditionum et experientiæ probatæ fructum magistralitatibus suis destruxerunt et sustulerunt; addendo, et demendo, et mutando, circa medicinas, prout iis libitum fuerit, et fere pharmacopœorum more quid pro quo substituendo; ita superbe imperantes medicinæ, ut medicina non amplius imperet morbo. Demptis enim theriaca, et mithridatio, et fortasse diascordio, et confectione alkermes, et paucis aliis medicinis, ad nulla fere certa pharmaca se religiose et severe astringunt. Nam medicamenta illa, quæ in officinis prostant venalia, potius in promptu sunt ad intentiones generales, quam accommodata et propria ad curationes particulares; siquidem speciatim nullum morbum magnopere respiciunt, verum generatim ad obstructiones aperiendas, concoctiones confortandas, intemperies alterandas, pertinent. Atque hinc præcipue fit, ut empirici et vetulæ sæpenumero in curandis morbis felicius operentur, quam medici eruditi, quia medicinarum probatarum confectionem et compositionem fideliter et scrupulose retinent. Equidem memini, medicum quendam apud nos in Anglia, practica celebrem, religione prope Judæum, librorum lectione tanquam Arabem, solitum dicere: "Medici vestri Europæi sunt quidem viri docti, sed non norunt particulares curationes morborum." Quinetiam idem ludere solebat, parum decore, dicendo; "Medicos nostros similes esse episcopis, ligandi et solvendi claves habere, et nihil amplius." Sed ut serio quod res est dicamus; plurimum referre censemus, si medici aliqui, et eruditione et practica insigniores, opus aliquod confician, de medicinis probatis et experimentalibus, ad morbos particulares. Nam quod speciosa quis ratione nixus, existimet decere medicum doctum (habita ratione complexionis ægrorum, ætatis, tempestatis anni, consuetudinum et hujusmodi) potius medicinas ex tempore aptare, quam certis aliquibus præscriptis insistere; id fallax res est et experientiæ non satis attribuit, judicio plus nimis. Sane, quemadmodum in republica Romana, cives erant utilissimi et optime compositi, qui aut consules populo favebant, aut tribuni in partes senatus inclinabant: ita in hac materia, de qua agimus, medicos eos probamus, qui sint in magna eruditione, traditionales experientiæ plurimum faciunt; aut in practica insigni, methodos et generalia artis non aspernantur. Modificationes vero medicinarum (si quando sit opus eas adhibere) potius in vehiculis earum exercendæ sunt, quam in ipso corpore medicinarum; in quo nil novandum, absque evidenti necessitate. Hanc igitur partem, quæ de medicinis authenticis et positivis tractet, desiderari statuimus: res autem est, quæ tentari non debet absque aeri et severo judicio, et tanquam in synodo medicorum selectorum.

Item, inter præparationes medicinarum, mirari subit (præsertim cum medicinæ ex minoralibus a chemicis in tantum eveetæ et celebratæ sint; cumque tales medicinæ tutius adhibeantur ad exteriora, quam intro sumantur) nemiuem adhuc inventum, qui per artem thermas naturales et fontes medicinales imitari annixus fuerit: cum tamen in confesso sit, thermas illas et fontes, virtutes suas ex venis mineralium, per quas permeant, nancisci: quinetiam, in manifestum hujus rei documentum, bene norit humana industria discernere et distinguere, per separationes quasdam, ex quo genere mineralium hujusmodi aquæ inficiantur, veluti an ex sulphure, vitriolo, chalybe, aut aliquo simili: quæ naturalis aquarum tinctura, si ad artificiosas compositiones reduci posset, fuerit in potestate hominis, et plura genera earum (prout usus postulat) efficere, et temperamentum ipsarum pro arbitrio regere. Hanc igitur partem, de imitatione naturæ in balneis artificialibus (re proculdubio et utili et in promptu) desiderari censemus.

Ne vero singula scrupulosius exequamur, quam vel instituto nostro, vel hujusce tractatus naturæ convenit, claudemus hanc partem defectus alterius cujusdam enumeratione, qui maximi nobis videtur momenti: nimirum quod medendi ratio, quæ obtinuit, sit nimio plus compendiosa, quam ut insigne aliquid aut arduum præstare possit. Etenim judicio nostro, opinio fuerit magis blanda, quam vera, si quis existimet medicamentum aliquod tam potens aut felix fieri posse, ut usus ejus simplex curationi alicui grandiori sufficiat. Mirabilis profecto foret oratio, quæ pronunciata, aut etiam sæpius repetita, vitium aliquod animo penitus insitum aut inveteratum corrigere aut tollere possit. Longe certe abest. Verum quæ in natura eximie possunt, et pollent, sunt ordo, prosecutio, series, vicissitudo artificiosa. Quæ licet majus quoddam in præcipiendo judicium, majoremque in parendo constantiam requirant; tamen effectuum magnitudine abunde rem compensant. Etsi autem ex opera medicorum quotidiana, quam, invisendo, assidendo, præscribendo, ægrotis præstant, putaret quispiam, haud segniter ipsos curationem persequi, atque in eadem, certa quadam via, insistere: tamen si quis ea, quæ præscribere et ministrare soleant medici, acutius introspiciat, inveniet

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pleraque vacillationis et inconstantiæ plena, et quæ ex tempore excogitentur, et in mentem illis veniant, absque certo aliquo aut præviso curationis tramite. Debaerant autem etiam ab initio, post morbum bene perspectum et cognitum, seriem curandi ordinatam meditari, neque ab ea, absque gravi causa, discedere. Atque sciant pro certo medici, posse (exempli gratia) tria fortasse aut quatuor medicamenta ad morbum aliquem gravem curandum recte præscribi, quæ debito ordine et debito intervallo sumpta curationem præstent: quorum singula, si per se tantum sumerentur, aut si ordo inverteretur, aut intervallum non servaretur, fuerint prorsus nocitura. Neque tamen id volumus, ut omnis scrupulosa et superstitiosa curandi ratio in pretio sit tanquam optima (non magis, quam omnis via areta, via sit ad cœlum) verum ut æque recta sit via, ac areta et difficilis. Illane autem partem, quam filum medicinale vocabimus, desiderari ponimus. Atqui hæc illa sunt, quæ in doctrina medicinæ de curatione morborum desideramus: nisi quod restet unicum, quod pluris est, quam illa omnia. Desideratur nimirum philosophia naturalis vera et activa, cui medicinæ scientia inædificetur. Cæterum illa non est hujusce tractatus.

Tertiam partem medicinæ, posuimus illam de prolongatione vitæ, quæ nova est, et desideratur; estque omnium nobilissima. Si enim tale aliquid inveniri possit, non versabitur tantum medicina in curationum sordibus; nec medici ipsi propter necessitatem solummodo honorabuntur, sed utique propter donum mortalibus, ex terrenis, quasi maximum, cujus poterint esse, secundum Deum, dispensatores et administri. Licet enim mundus homini Christiano, ad terram promissionis contendenti, tanquam eremus sit; tamen in eremo ipsa proficiscentibus, calceos et vestes (corpus scilicet nostrum, quod animæ loco tegminis est) minus atteri, gratiæ divinæ munus quoddam æstimandum. Hæc de re, quia est ex optimis, eamque inter desiderata posuimus, ex more nostro, et monita dabimus, et indicia, et præcepta.

Primo monemus, ex scriptoribus, circa hoc argumentum, neminem esse, qui aliquid magni, ne dicamus aliquid sani, reperierit. Aristoteles certe commentarium de hoc edidit perpusillum, in quo nonnihil inest acuti: quod ipse omnia esse vult, ut solet. At recentiores tam oscitanter, et superstitiose de hoc scripserunt, ut argumentum ipsum, ob eorum vanitatem, tanquam vanum et vecors haberi cœperit.

Secundo monemus, ipsas intentiones, quæ hoc spectant, medicorum, res nihili esse, et cogitationes hominum a re potius abducere, quam versus eam dirigere. Sermocinantur enim, mortem in destitutione calidi et humidi consistere: deberi itaque calorem naturalem confortari, humorem autem radicalem foveri: perinde ac si hæc res juscalis, aut lactucis et malvis, aut amydo, aut jujubis, aut rursus aromatibus, aut vino generoso, aut etiam spiritu vini, et oleis chemicis, confici possit. Quæ omnia obsunt potius, quam prosunt.

Tertio monemus, ut homines nugari desinant, nec tam faciles sint, ut credant, grande illud opus, quale est naturæ cursum remorari et retrovertere, posse haustu aliquo matutino, aut usu alicujus pretiosæ medicinæ, ad exitum perduci: non auro potabili, non margaritarum essentiis, et similibus nugis: sed ut pro certo habeant, prolongationem vitæ esse rem operosam, et quæ ex compluribus remediis, atque eorum inter se coaptatione idonea, constet. Neque enim quisquam ita stupidus esse debet, ut credat, quod nunquam factum est adhuc, id fieri jam posse, nisi per modos etiam nunquam tentatos.

Quarto monemus, ut homines rite animadvertant et distinguant, circa ea, quæ ad vitam sanam, et ea, quæ ad vitam longam, conferre possunt. Sunt enim nonnulla, quæ ad spirituum alacritatem, et functionum robur, et morbos arcendos, prosunt; quæ tamen de summa vitæ detrahunt, et atrophiam senilem absque morbis accelerant: sunt et alia, quæ ad prolongationem vitæ, et atrophiam senilem longius summovendam juvant: sed tamen non usurpantur absque periculo valetudinis; adeo ut qui iis utentur ad prolongationem vitæ, debeant simul incommodis occurrere, quæ alioquin ex eorum usu supervenire possint. Atque monita hactenus dedimus.

Quod ad indicia attinet; tale hujus rei (quam animo metimur) plasma est. Conservantur res et durant duobus modis: aut in identitate sua; aut per reparationem. In identitate sua, ut musca aut formica in succino; flos, aut pomum, aut lignum, in conservatoriis nivalibus; cadaver inter balsama. Per reparationem, ut in flamma, et in mechanicis. Operanti ad prolongationem vitæ, utroque genere utendum est (disjuncta minus possunt) corpusque humanum conservandum, quemadmodum inanimata conservantur: ac rursus quemadmodum flamma conservatur; ac denique quodamtenus ut mechanica conservantur. Tres igitur sunt ad prolongandam vitam intentiones: retardatio consumptionis; probitas reparationis; et renovatio ejus, quod cœpit veterascere. Consumptio fit a duabus deprædationibus: deprædatione spiritus innati; et deprædatione aëris ambientis. Prohibitio utriusque duplex: aut si agentia illa fiant minus prædatoria, aut si patientia (succi scilicet corporis) reddantur minus deprædabilia. Spiritus fit minus prædatorius, si aut substantia densetur, ut in usu opiatorum et nitratorum, et in contristationibus: aut quantitate minuatur, ut in diætis Pythagoricis et monasticis: aut motu leniatur, ut in otio et tranquillitate. Aër ambiens fit minus prædatorius, si aut minus incalescat a radiis solis, ut in regionibus frigidioribus, in speluncis, in montibus, et in columnis anachoretarum: aut summoveatur a corpore; ut in ente densa, et in plumis avium, et in usu olei et unguentorum absque aromatibus. Succi corporis redduntur minus deprædabiles, si aut duri facti sint, aut roscidi sive oleosi. Duri, ut in victu aspero; vita in frigido; exercitationibus robustis; balneis quibusdam mineralibus. Roscidi, ut in usu dulcium, et abstinentia a salsis et acidis, et maxime omnium in tali mistione potus, quæ sit partium valde tenuium et subtilium, absque tamen omni acrimonia aut acedine. Reparatio fit per alimenta: alimentatio autem promovetur quatuor modis: per concoctionem viscerum ad extrusionem alimenti, ut in confortantibus viscera principalia: per excitationem partium exteriorum ad attractionem alimenti, ut in exercitationibus et fricationibus debitis, atque unctionibus quibusdam et balneis appro-

priatis: per præparationem alimenti ipsius, ut facilius se insinuet, et digestiones ipsas quadamtenus anticipet, ut in variis et artificiosis modis cibi condiendi, potus miscendi, panis fermentandi, et horum trium virtutes in unum redigendi: per confortationem ipsius ultimi actus assimilationis, ut in somno tempestivo, et applicationibus quibusdam exterioribus. Renovatio ejus, quod cœpit veterascere, fit duobus modis: vel per intenerationem habitus corporis ipsius, ut in usu malacissationum ex balneis, emplastris, et unctionibus: quæ talia sint ut imprimant, non extrahant: vel per expurgationem succi veteris, et substitutionem succi novi, ut in tempestivis et repetitis purgationibus, sanguinis missionibus, et diætis attenuantibus, quæ florem corporis restituunt. Atque de indiciis hactenus.

Præcepta, quanquam ex ipsis indiciis plurima possint dednci; tria tamen veluti præcipua subjungere visum est. Præcipimus primo, ut prolongatio vitæ expectetur potius a diætis statis, quam a regimine aliquo victus familiari; aut etiam a medicamentorum particularium excellentia. Etenim, quæ tanta virtute pollent, ut naturam retrovertere valeant; fortiora plerunque sont, et potentiora ad alterandum, quam ut simul in aliqua medicina componi, multo minus in victu familiari interspergi possint. Superest itaque ut seriatim et regulariter, et ad tempora certa, et victibus certis recorrentia, adhibeantur.

Secundo præcipimus, ut prolongatio vitæ expectetur potius ab operatione in spiritus, et a malacissatione partium, quam a modis alimentandi. Etenim, cum corpus humanum, ejusque fabrica (missis externis) a tribus patiatur; spiritibus scilicet, partibus, et alimentia; via prolongationis vitæ per alimentandi modos longa est; atque per multas ambages et circuitus: at viæ per operationes super spiritus, et super partes, multo breviores sunt, et quibus citius ad finem desideratum pervenitur; eo quod spiritus subito patiantur, et a vaporibus, et ab affectibus, quæ miris modis in eos possunt: partes item, per balnea, aut unguenta, aut emplastra, quæ subitas etiam impressiones faciunt.

Tertio præcipimus, quod malacissatio partium per exterius, fieri debet, per consubstantialia, imprimentia, et occludentia. Consubstantialia enim benevolo partium amplexu libenter excipiuntur, et proprie malacissant. Imprimentia autem et virtutem malacissantium, tanquam vehicula, facilius et altius deducunt, atque ipsa partes nonnihil expandunt. Occludentia autem, virtutem utrorumque retinent, et paulisper figunt, et perspirationem, quæ est res malacissationi opposita (quia humidum emittit) cohibent. Itaque per hæc tria (sed potius ordine disposita et succedentia, quam commixta) res absolvitur. Interim in hac parte monemus; non eam esse intentionem malacissationis, ut nutriat partes per exterius; sed tantum ut eas reddat magis idoneas ad nutriendum. Quicquid enim magis aridum est, minus est activum ad assimilandum. Atque de prolongatione vitæ, quæ est pars tertia medicinæ noviter ascripta, hæc dicta sint.

Veniamus ad cosmeticam, quæ certe partes habet civiles, partes rursus effœminatas. Corporis enim munditia, et decor honestus, recte existimatur promanare a modestia quadam morum, et a reverentia; imprimis erga Deum, cujus creaturæ sumus; tum erga societatem, in qua degimus; tum etiam erga nosmet ipsos, quos non minus, imo magis, quam alios, revereri debemus. Verum adulterina illa decoratio, quæ fucos et pigmenta adhibet, digna certe est illis defectibus, qui eam semper comitantur; cum non sit, aut ad fallendum satis ingeniosa, aut ad utendum satis commoda, aut ad salubritatem satis tuta et innocua. Miramur autem, pravam hanc consuetudinem fucandi, leges censorias, tam ecclesiasticas quam civiles (quæ alias in luxuriam circa vestes, aut cultus capillorum effœminatos, admodum fuerint severæ) ita diu fugisse. Legimus certe de Jezabele, quod pigmentis faciem obliverit; verum de Esthera et Juditha nil tale perhibetur.

Pergamus ad athleticam: eam sensu intelligimus paulo largiori, quam accipi consuevit. Huc enim referimus quicquid versatur circa conciliandam qualemcunque (quam corpus humanum suscipit) habilitatem; sive sit agilitatis sive tolerantiæ. Quarum agilitas duas habet partes, robur et velocitatem: ac tolerantia itidem duas, vel indigentiarum naturalium patientiam, vel in cruciatibus fortitudinem. Quorum omnium videmus sæpenumero exempla insignia, in practica funambulorum, in duro victu hominum quorundam barbarorum, in stupendis viribus maniacorum, et in constantia nonnullorum inter exquisita tormenta. Imo si aliqua alia reperiatur facultas, qua in priorem partitionem non cadit (qualis in urinatoribus sæpe conspicitur, qui mirifice anhelitum cohibere possunt) ad hanc ipsam artem aggregari volumus. Atque quod talia fieri quandoque possint, manifestissimum est: at philosophia et inquisitio causarum circa eadem fere negleeta jacet; hanc arbitramur ob causam, quod hominibus persuasum sit hujusmodi magisteria naturæ solummodo vel ex peculiari certorum hominum indole (quæ sub disciplinam non cadit) vel a diutina, ab annis usque puerilibus, consuetudine (quæ potius imperari, quam doceri solet) obtinere. Quod etsi verum prorsus non sit, tamen defectus hujusmodi rerum quid attinet notare? Certamina enim Olympica jam diu cessarunt: tum etiam in ejusmodi rebus mediocritas sufficit ad usum: excellentia autem mercenariæ cuidam ostentationi fere inservit.

Postremo accedimus ad artes voluptarias. Eæ secundum sensus ipsos dispertitæ sunt: oculos oblectat præcipue pictoris, cum aliis artibus innumeris, quæ ad magnificentiam spectant, circa ædificia, hortos, vestes, vasa, calices, gemmas, et similia. Aures demulcet musica, quæ tanta vocum, spiritus, cordarum, varietate et apparatu instructa est. Olim etiam hydraulica pro coryphæis quibusdam artis ejus habita sunt, quæ nunc prope obsoleverunt. Atque artes, quæ ad visum aut auditum spectant, præ aliis præcipue liberales habitæ sunt: sensus hi duo magis casti: scientiæ magis eruditæ, quippe qui etiam mathematicam, veluti ancillam, in familiis suis habeant: etiam altera ad memoriam et demonstrationes, altera ad mores et affectus animi nonnihil respicit. Reliquorum sensuum oblectationes, atque artes circa ipsos, minus in honore sunt, veluti luxuriæ, quam magnificentiæ, propiores: unguenta, odoramenta, deliciæ et cupediæ mensarum, maxime autem inei-

tamenta libidinis, rectius censore, quam doctore, indigent. Optime sane a quibusdam annotatum est, nascentibus et crescentibus rebuspublicis artes militares florere; in statu et culmine positis liberales; at ad declinationem et decasum vergentibus voluptarias. Hæc vero ætas nostra, vereor ne, tanquam in decasu felicitatis, in artes voluptarias inclinet. Quare ista missa faciamus. Cum artibus voluptariis joculares copolo. Deceptiones siquidem sensuum inter delectationes sensuum reponendæ sunt.

Jam vero transcursis doctrinis illis circa corpus humanum (medicina, cosmetica, athletica, voluptaria) illud obiter monemus; cum in corpore humano tot res in considerationem veniant, partes, humores, functiones, facultates, accidentia: cumque (si nobis integrum esset) constitui oportuisset corpus unicum doctrinæ de corpore humano, quæ ista omnia complecteretur (simile illi doctrinæ de anima, de qua mox dicemus) tamen, ne artes nimis multiplicentur, neve veteres artium limites (plusquam necesse fuerit) transponantur, doctrinam de partibus corporis humani, de functionibus, de humoribus, de respiratione, de somno, de generatione, de fœtu et gestatione in utero, de augmentis, de pubertate, de canitie, de impinguatione, et similibus, in corpus medicinæ recipimus; licet ad officia illa tria non proprie pertineant; sed quia corpus ipsum hominis sit per omnia medicinæ subjectum. Motum autem voluntarium, et sensum, ad doctrinam de anima rejicimus; siquidem animæ partes in his duobus sunt potiores. Atque sic doctrinam, quæ circa corpus hominis versatur, quod animæ pro tabernaculo duntaxat est, claudimus.

CAPUT TERTIUM.

Partitia philosophiæ humanæ circa animam in doctrinam de spiraculo; et doctrinam de anima sensibili sive producta. Partitia secunda ejusdem philosophiæ in doctrinam de substantia et facultatibus animæ, et doctrinam de usu et objectis facultatum. Appendices duæ doctrinæ de facultatibus animæ: doctrina de divinatione naturali, et doctrina de fascinatione. Distributio facultatum animæ sensibilis in motum et sensum.

Veniamus ad doctrinam de anima humana; e cujus thesauris omnes cæteræ doctrinæ depromptæ sunt. Ejus duæ sunt partes; altera tractat de anima rationali, quæ divina est; altera de irrationali, quæ communis est cum brutis. Notavimus autem paulo superius (ubi de formis loquebamur) differentes illas duas animarum emanationes, quæ in prima utriusque creatione se dant conspiciendas; nimirum, quod altera ortum habuerit a spiraculo Dei, altera e matricibus elementorum. Nam de animæ rationalis generatione primitiva, ita ait Scriptura: "Formavit hominem de limo terræ, et spiravit in faciem ejus spiraculum vitæ." At generatio animæ irrationalis, sive brutorum, facta est per verba illa, "Producat aqua, Producat terra." Hæc autem anima (qualis est in homine) animæ rationali organum tantum est, atque originem habet et ipsa quoque, quemadmodum in brutis, e limo terræ; neque enim dictum est, "Formavit corpus hominis de limo terræ," sed "Formavit hominem;" integrum scilicet hominem, excepto illo spiraculo. Quamobrem partem primam doctrinæ generalis circa animam humanam, doctrinam de spiraculo appellabimus; secundam vero, doctrinam de anima sensibili sive producta. Neque tamen, cum hactenus philosophiam solam tractemus (quippe sacram theologiam in fine operis collocavimus) partitionem istam a theologia mutuaremus, nisi etiam cum principiis philosophiæ conveniret. Plurimæ enim et maximæ sunt animæ humanæ præcellentiæ supra animas brutorum, etiam philosophantibus secundum sensum manifestæ. Ubicunque autem tot et tantarum invenitur excellentiarum symbolum, ibi merito semper constitui debet differentia specifica. Itaque nobis non nimium placet confusa illa et promiscua philosophorum de animæ functionibus tractatio; ac si anima humana gradu potius, quam specie, discriminata esset ab anima brutorum: non aliter, quam sol inter astra, aut aurum inter metalla.

Subjungenda est etiam partitio alia doctrinæ generalis circa animam humanam, antequam de speciebus fusius loquamur. Etenim, quæ de speciebus postea dicemus, utramque partitionem, tum illam, quam jam modo posuimus, tum istam, quam nunc proponemus, simul tractabunt. Secunda igitur partitio sit, in doctrinam de substantia et facultatibus animæ, et doctrinam de usu et objectis facultatum.

Præmissis itaque his partitionibus geminis, ad species accedamus. Doctrina de spiraculo, eademque de substantia animæ rationalis, complectitur inquisitiones illas de natura ejus; utrum nativa sit illa, an adventitia; separabilis, an inseparabilis; mortalis, an immortalis; quatenus legibus materiæ alligata, quatenus minime; et similia. Quæ vero hujus sunt generis, licet etiam in philosophia, et diligentiorem et altiorem inquisitionem subire possint, quam adhuc habetur; utcunque tamen in fine, religioni determinanda et definienda rectius transmitti censemus: aliter enim, erroribus haud paucis, et sensus illusionibus omnino exponentur. Etenim, cum substantia animæ, in creatione sua, non fuerit extracta aut deducta ex massa cœli et terræ, sed immediate inspirata a Deo; eumque leges cœli et terræ sint propria subjecta philosophiæ; quomodo possit cognitio de substantia animæ rationalis ex philosophia peti et haberi? Quinimo ab eadem inspiratione divina hauriatur, a qua substantia animæ primo emanavit.

Doctrina vero de anima sensibili, sive producta, etiam quatenus ad substantiam ejus, vere inquiritur: at ea inquisitio nobis quasi desiderari videtur. Quid enim ad doctrinam de substantia animæ faciunt, actus ultimus, et forma corporis, et hujusmodi nugæ logicæ? Anima siquidem sensibilis sive brutorum, plane substantia corporea censenda est, a calore attenuata, et facta invisibilis; aura (inquam) ex natura flammea et aërea conflata, aëris mollitie ad impressionem recipiendam, ignis vigore ad actionem vibrandam dotata; partim ex oleosis, partim ex aqueis nutrita; corpore obducta, atque in animalibus perfectis in capite præcipue locata; in ner

vis pereurrens, et sanguine spirituoso arteriarum refecta et reparata; quemadmodum Bernardinus Telesius et discipulus ejus Augustinus Donius, aliqua ex parte, non omnino inutiliter, asseruerunt. Itaque de hac doctrina diligentior fiat inquisitio: eo magis, quod hæc res non bene intellecta, opiniones superstitiosas, et plane contaminatas, et dignitatem animæ humanæ pessime conculeantes, de metempsychosi et lustrationibus animarum per periodos annorum, denique de nimis propinqua animæ humanæ erga animas brutorum per omnia cognatione, pepererit. Est autem hæc anima in brutis anima principalis, cujus corpus brutorum organum; in homine autem, organum tantum et ipsa animæ rationalis; et spiritus potius appellatione, quam animæ, indigitari possit. Atque de substantia animæ hactenus.

Facultates autem animæ notissimæ sunt; intellectus, ratio, phantasia, memoria, appetitus, voluntas; denique universæ illæ, circa quas versantur scientiæ logicæ et ethicæ: sed in doctrina de anima, origines ipsarum tractari debent, idque physice, prout animæ innatæ sint, et adhæreant: usus tantum ipsarum, et objecta, illis alteris artibus deputantur. Atque in hac parte nihil egregii (ut nobis videtur) adhuc repertum est; quanquam desiderari eam haud sane dixerimus. Habet etiam pars ista de facultatibus animæ appendices duas; quæ et ipsæ, quemadmodum tractantur, potius fumos nobis exhibuerunt, quam flammam aliquam lucidam veritatis: altera harum est doctrina de divinatione naturali; altera de fascinatione.

Divinationem ab antiquis, nec male, in duas partes divisam habemus; artificialem et naturalem. Artificialis ratiocinando, ex indicatione signorum, prædictionem colligit. Naturalis, ex ipsa animi præsensione interna, absque signorum admixtione, præsagit. Artificialis duplex; altera argumentatur ex causis: altera ex experimentis tantum, cæca quadam auctoritate: quæ posterior, ut plurimum, superstitiosa est; quales erant ethnicorum d seiplinæ circa inspectionem extorum, volatum avium, et similia. Etiam Chaldæorum astrologia solennior, non multo melior. At artificialis divinatio utraque inter diversas scientias spargitur. Habet astrologus prædictiones suas ex situ astrorum: habet etiam medicus suas, de morte ingruente; de convalescentia; de symptomatibus morborum superventuris, ex urinis, pulsibus, aspectu ægrotorum, et similibus: habet, et politicus, suas: "O urbem venalem, et cito perituram, si emptorem invenerit!" cujus vaticinii fides non diu morata est; impleta primum in Sylla, postea in Cæsare. Hujusmodi igitur prædictiones præsentis non sunt instituti, verum ad artes proprias remitti debent. Naturalis autem divinatio, ex vi scilicet interna animi ortum habens, ea demum est, de qua nunc agitur. Hæc duplex est; altera nativa; altera per influxum. Nativa hoc nititur suppositionis fundamento; quod anima in se reducta, atque colleeta, nec in corporis organa diffusa, habeat ex vi propria essentiæ suæ aliquam prænotionem rerum futurarum; illa vero optime eernitur in somnis, eestasibus, confiniis mortis; rarius inter vigilandum, aut cum corpus sanum sit ac validum. Hujusmodi vero status animi procuratur fere, aut adjuvatur ex abstinentiis, atque iilis rebus, quæ animam a muneribus corporis exereendis maxime sevoeant, ut sua natura absque impeditionibus exteriorum gaudere possit. Divinatio vero per influxum hoc altero suppositionis fundamento nititur; quod anima, veluti speculum, illuminationem quandam secundariam a præscientia Dei et spirituum excipiat: cui etiam idem, qui priori, status et regimen eorporis confert. Eadem enim animæ sevocatio effieit, ut et sua natura impensius utatur, et divinorum influxum, sit magis susceptiva: nisi quod in divinationibus per influxum anima fervore quodam, atque tanquam numinis præsentis impatientia (quæ apud priscos saeri furoris nomine vocabatur) eorripiatur: in divinatione autem nativa, quieti potius et vacationi propior sit.

Fascinatio autem est vis et aetus imaginationis intensivus in corpus alterius (vim enim imaginationis super eorpus proprium ipsius imaginantis superius perstrinximus). In hoc genere schola Paracelsi, et ementitæ naturalis magiæ cultores, tam fuerunt immodiei, ut imaginationis impetum et apprehensionem miraeula patranti fidei tantum non exæquarint. Alii ad similitudinem veri propius aeeedentes; cum oeeultas rerum energias et impressiones, sensuum irradiationes, contagionum de corpore in eorpus transmissiones, virtutum magnetiearum delationes, aeutius intuerentur; in eam opinionem devenerunt, quod multo magis a spiritu in spiritum (eum spiritus præ rebus omnibus sit, et ad agendum strenuus, et ad patiendum tener et mollis) impressiones, et delationes, et eommunieationes fieri poterint. Unde inerebuerunt opiniones, factæ quasi populares, de genio superiori, de hominibus quibusdam infaustis et ominosis, de ictibus amoris et invidiæ, et aliæ his similes. Atque huie conjuneta est disquisitio, quomodo imaginatio intendi et fortifieari possit? Quippe si imaginatio fortis tantarum sit virium, operæ pretium fuerit nosse, quibus modis eam exaltari, et scipsa majorem fieri detur? Atque hie oblique, nec minus perieulose, se insinuat palliatio quædam et defensio maximæ partis magiæ eeremonialis. Speciosus enim fuerit prætextus, ceremonias, charaeteres, ineantationes, gesticulationes, amuleta, et similia, non ex aliquo tacito aut saeramentali cum malis spiritibus contractu vires nancisci; sed eo pertinere tantum, ut imaginatio illius, qui his utitur, roborctur et exaltetur: quemadmodum etiam in religione, usus imaginum, ad mentes hominum in rerum contemplatione defigendas, et devotionum preeantium excitandam, invaluit. Attamen mea talis est sententia; etiam si detur, vim imaginationis esse utique potentem, atque insuper eeremonias vim illam intendere et roborare; posito denique, quod adhibeantur eeremoniæ ad hanc intentionem sincere, atque tanquam remedium physicum, absque aliqua vel minima eogitatione de invitandis per ipsas auxiliis spirituum: haberi nihilominus debent pro illicitis, propterea quod sententiæ illi divinæ, adversus hominem propter peccatum latæ, repugnent et recalcitrent: "In sudore vultus comedes panem tuum." Siquidem magia ejus generis, egregios illos fructus, quibus Deus pretium laborem constituit, adipiscendos proponit, per paucas, easque faeiles et minime operosas observantias.

Supersunt doctrinæ duæ, quæ ad facultates animæ inferioris, sive sensibilis, præcipue spectant, utpote quæ cum organis corporeis maxime communicant. Altera de motu voluntario: altera de sensu et sensibili. In priori harum, etiam alias satis jejune inquisita, unica pars fere integra deest. Etenim de officio et fabrica commoda nervorum et musculorum, et aliorum, quæ ad hunc motum requiruntur; quæque pars corporis quiescat, dum alia moveatur; tum quod hujusce motus rector, et quasi auriga sit imaginatio; adeo ut dimissa imagine, ad quam motus fertur, statim intercipiatur et sistatur motus ipse (ut cum deambulamus, si alia subeat cogitatio acris et defixa, continuo consistimus) et aliæ nonnullæ subtilitates non male in observationem et inquisitionem jam pridem venerunt. Quomodo vero compressiones, et dilatationes, et agitationes spiritus (qui proculdubio motus fons est) corpoream et crassam partium molem flectat, excitet, aut pellat, adhuc diligenter inquisitum et tractatum non est. Neque mirum, cum anima ipsa sensibilis hactenus potius pro entelechia et functione quadam habita sit, quam pro substantia. At quando jam innotuerit, ipsam esse substantiam corpoream et materiatam, necesse est etiam, ut quibus nixibus aura tam pusilla et tenera, corpora tam crassa et dura in motu ponere possit, inquirntur. De hac parte igitur, cum desideretur, fiat inquisitio.

At de sensu et sensibili longe uberior et diligentior adhibita est inquisitio, tam in tractatibus circa ea generalibus, quam in artibus specialibus, utpote perspectiva, musica; quam vere nihil ad institutum: quandoquidem illa tanquam desiderata ponere non liceat. Sunt tamen duæ partes nobiles et insignes, quas in hac doctrina desiderari statuimus; altera de differentia perceptionis et sensus; altera de forma lucis.

Atque differentiam inter perceptionem et sensum, bene enucleatam, debuerant philosophi tractatibus suis de sensu et sensibili præmittere, ut rem maxime fundamentalem. Videmus enim, quasi omnibus corporibus naturalibus inesse vim manifestam percipiendi: etiam electionem quandam amica amplectendi, inimica et aliena fugiendi. Neque nos de subtilioribus perceptionibus tantum loquimur, veluti cum magnes ferrum allicit; flamma ad naphtham assilit; bulla bullæ approximata coit; radiatio ab objecto albo dissilit; corpus animalis utilia assimilat, inutilia excernit; spongiæ pars (etiam super aquam elevata) aquam attrahit, aërem expellit; et hujusmodi. Etenim quid attinet talia enumerare? Nullum siquidem corpus ad aliud admotum illud immutat, aut ab illo immutatur, nisi operationem præcedat perceptio reciproca. Percipit corpus meatus, quibus se insinuat: percipit impetum alterius corporis, cui cedit: percipit amotionem alterius corporis, a quo detinebatur, cum se recipit: percipit divulsionem sui continui, cui ad tempus resistit: ubique denique est perceptio. Aër vero calidum et frigidum tam acute percipit, ut ejus perceptio sit longe subtilior, quam tactus humani; qui tamen pro calidi et frigidi norma habetur. Duplex igitur deprehenditur circa hanc doctrinam hominum culpa: alia, quod eam intactam et intractatam (cum tamen sit res nobilissima) plerunque reliquerunt: alia, quod qui huic contemplationi forte animum adjecerunt, longius, quam par est, provecti sunt, et sensum corporibus omnibus tribuerunt; ut piaculum fere sit ramum arboris avellere, ne forte instar Polydori ingemiscat. At debuerant illi differentiam perceptionis et sensus, non tantum in comparatione sensibilium ad insensibilia, secundum corpus integrum, explorare (veluti plantarum et animalium) verum etiam in corpore ipso sensibili animadvertere, quid in causa sit, cur tot actiones expediantur, absque omni tamen sensu? Cur alimenta digerantur, egerantur; humores et succi, sursum, deorsum, ferantur; cor et pulsus vibrent; viscera, sua quæque opificia, sicut officinæ, producant; et tamen hæc omnia, et complura alia, absque sensu fiant? Verum homines non satis acute, qualis sit actio sensus, viderunt, atque quod genus corporis, quæ mora, quæ conduplicatio impressionis ad hoc requirantur, ut dolor vel voluptas sequatur? Denique differentiam inter perceptionem simplicem et sensum, nullo modo nosse videntur; nec quatenus fieri possit perceptio absque sensu. Neque enim hæc verborum tantum controversia est, sed de re magni prorsus momenti. De hac igitur doctrina (ut imprimis utili, et ad plurima spectante) melius inquiratur: quandoquidem etiam circa hanc rem inscitia tantum apud nonnullos ex antiquis philosophis potuerit, ut omnibus sine discrimine corporibus animam infundi putaverint: neque enim videbant, quomodo motus cum discretione fieri potuerit absque sensu; aut sensus adesse absque anima.

De forma lucis quod debita non facta fuerit inquisitio (præsertim cum in perspectiva strenue elaborarunt homines) stupenda quædam negligentia censeri possit. Etenim, nec in perspectiva, nec alias, aliquid de luce, quod valeat, inquisitum est. Radiationes ejus tractantur, origines minime. Sed collocatio demum perspectivæ inter mathematica, hunc ipsum defectum et alios similes peperit; quia a physicis præmature discessum est. Tractatio autem de luce, et causis ejus, in physicis rursus superstitiosa fere est, tanquam de re inter divina et naturalia media; adeo ut quidam ex Platonicis eam materia ipsa antiquiorem introduxerint. Cum enim spatium esset difflatum, id primum lumine, postea vero corpore impletum fuisse, vanissimo commento asseruerunt: quando tamen Scripturæ sacræ, massam cœli et terræ, tenebrosam, ante lucem creatam, diserte posuerint. Quæ vero physice et secundum sensum de ea tractantur, ea statim ad radiationes descendunt, ut parum physicæ inquisitionis circa hanc rem extet. Debuerant autem homines contemplationes suas submittere paulisper, et quid sit corporibus omnibus lucidis commune inquirere, tanquam de forma lucis. Etenim quam immensa est corporis differentia (si ex dignitate considerentur) inter solem et lignum putridum, aut squamas etiam piscium putridas? Inquirere etiam debuerant, quid tandem in causa sit, cur aliqua ignescant, et lucem ex se jaciant calefacta, alia minime? Ferrum, metalla, lapides, vitrum, ligna, oleum, sevum, ab igne, vel flammam vibrant, vel saltem rubescunt: at aqua, aër, acerrimo et tanquam furenti calore fervefacta, nihil tamen lucis adipiscuntur, nec splendent. Quod si quis hoc eo fieri putet, quod proprium sit ignis lucere, aqua

autem et aër igni omnino inimica sint; is sane nunquam per obscuru noctis in aqua salsa, tempestate calida, remigavit; eum guttulas aquæ ex remorum concussione subsilientes micare et lucescere videre potuisset. Quod etiam fit in spuma maris ferventiore, quam pulmonem marinum vocant. Quid denique habent commune cum flamma et ignitis cicendulæ et luciolæ; et musca Indica, quæ cameram totam illustrat; et oculi quorundam animalium in tenebris; et sacchurum inter radendum, aut frangendum; et sudor equi nocte æstuosa festinantis; et alia nonnulla? Quin et homines tam parum in hac re viderunt, ut plerique scintillas e silice aërem attritum putent. Attamen quando aër calore non ignescat, et lucem manifesto concipiat, quomodo tandem fit, ut noctuæ, et feles, et alia nonnulla animalia, noctu cernant? Adeo ut ipsi aëri (quando visio absque luce non transigatur) necesse est inesse lucem aliquam nativam et genuinam, quamvis tenuem admodum et infirmam, quæ tamen sit radiis visivis hujusmodi animalium proportionata, iisque ad videndum sufficiat. Verum hujusce mali (ut plurimorum) causa est, quod homines, ex instantiis particularibus, formas naturarum communes non elicuerunt; id quod nos tanquam subjectum proprium metaphysicæ posuimus; quæ et ipsa physicæ, sive doctrinæ de natura, pars est. Itaque de forma et originibus lucis fiat inquisitio, eaque interim inter desiderata ponatur. Atque de doctrina circa substantiam animæ, tam rationalis quam sensibilis, cum facultatibus suis, atque de ejusdem doctrinæ appendicibus, hæc dicta sint

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DE DIGNITATE ET AUGMENTIS SCIENTIARUM.

LIBER QUINTUS

AD REGEM SUUM.

CAPUT PRIMUM.

Partitio doctrinæ circa usum et objecta facultatum animæ humanæ, in logicam, et ethicam. Partitio logicæ, in artes inveniendi, judicandi, retinendi, et tradendi.

Doctrina circa intellectum, rex optime, atque illa altera circa voluntatem hominis, in natalibus suis tanquam gemellæ sunt. Etenim illuminationis puritas, et arbitrii libertas, simul incepernat, simul corruerunt. Neque datur in universitate rerum, tam intima sympathia, quam illa veri et boni. Quo magis rubori fuerit viris doctis, si scientia sint tanquam angeli alati, cupiditatibus vero tanquam serpentes, qui humi reptant; circumgerentes animas, instar speculi sane, sed menstruati.

Venimus jam ad doctrinam circa usum et objecta facultatum animæ humanæ. Illa duas habet partes, easque notissimas, et consensu receptas; logicam et ethicam: nisi quod doctrinam civilem, quæ vulgo ut pars ethicæ collocatur, jam ante emancipaverimus; et in integram doctrinam de homine congregato, sive in societate, constituerimus; hic tantum de homine segregato tractantes. Logica de intellectu et ratione; ethica de voluntate, appetitu, et affectibus disserit: altera decreta, altera actiones progignit. Verum quidem est, quod phantasia in utraque provincia, tam judiciali quam ministeriali, legati cujusdam, aut internuncii, aut procuratoris reciproci vices gerit. Nam sensus idola omnigena phantasiæ tradit, de quibus postea ratio judicat: at ratio vicissim idola electa et probata phantasiæ transmittet, priusquam fiat executio decreti. Siquidem motum voluntarium perpetuo præcedit, eumque incitat phantasia: adeo ut phantasia sit utrique tam rationi quam voluntati instrumentum commune: nisi quod Janus iste bifrons sit, et duas obvertat facies: facies enim rationem aspiciens, veritatis habet effigiem; facies autem actionem aspiciens, effigiem bonitatis: quæ tamen sint facies,

——"Quales decet esse sororum."

Neque vero merus et nudus internuncius est phantasia; sed auctoritatem non exiguam vel accipit, vel usurpat, præter delationem simplicem mandati. Recte enim Aristoteles, "Id imperii habet anima in corpus, quod dominus in mancipium; ratio vero in phantasiam, quod in libera civitate magistratus in civem;" ad quem possit sua vice redire dominatio. Videmus enim quod in iis, quæ sunt fidei et religionis, phantasia supra ipsam rationem scandat et evehatur: non quod illuminatio divina locum habeat

in phantasia (quin potius in ipsa arce mentis et intellectus) verum quemadmodum gratia divina in virtutibus utitur motibus voluntatis; ita similiter gratia divina in illuminationibus utitur motibus phantasiæ; unde fit ut religio semper aditum sibi ac viam ad animum quæsierit per similitudines, typos, parabolas, visiones, insomnia. Rursus haud humile est regnum phantasiæ in persuasionibus, a vi eloquentiæ insinuatis. Nam ubi per orationis artificia hominum animi demulcentur, inflammantur, et in quamcunque partem pertrahuntur; totum illud fit per exsuscitationem phantasiæ, quæ impotens jam facta, non solum rationi insultat, verum eidem vim quodammodo facit, partim occæcando, partim extimulando. Neque tamen causa videtur, cur a partitione priore discedamus. Nam phantasia scientias fere non parit; siquidem poësis (quæ a principio phantasiæ attributa est) pro lusu potius ingenii, quam pro scientia, habenda. Potestatem autem phantasiæ in naturalibus doctrinæ de anima paulo ante assignavimus: eam vero, quam habet cum rhetorica cognationem, illi ipsi arti (de qua infra tractabimus) remitti par est.

Pars ista humanæ philosophiæ, quæ ad logicam spectat, ingeniorum plurimorum gustui ac palato minus grata est; et nihil aliud videtur, quam spinosæ subtilitatis laqueus ac tendicula. Nam sicut vere dicitur scientiam esse animi pabulum: ita in hoc pabulo appetendo et deligendo plerique palatum nacti sunt Israëlitarum simile in deserto: quos cupido incessit redeundi ad ollas carnium; mannæ autem fastidium cepit: quæ licet cibus fuerit cœlestis, minus tamen sentiebatur almus et sapidus. Eodem modo (ut plurimum) illæ scientiæ placent, quæ habent infusionem nonnullam carnium magis esculentam: quales sunt historia civilis, mores, prudentia politica, circa quas hominum cupiditates, laudes, fortunæ vertuntur et occupatæ sunt. At istud lumen siccum plurimorum mollia et madida ingenia offendit et torret. Cæterum unamquamque rem propria si placet dignitate metiri, rationales scientiæ reliquarum omnino claves sunt: atque quemadmodum manus instrumentum instrumentorum, anima forma formarum, ita et illæ, artes artium ponendæ sunt: neque solum dirigunt, sed et roborant; sicut sagittandi usus et habitus, non tantum facit ut melius quis collimet, sed ut arcum tendat fortiorem.

Artes logicæ quatuor numero sunt; divisæ ex finibus suis, in quos tendunt. Id enim agit homo in rationalibus; aut ut inveniat, quod quæsiverit: aut judicet, quod invenerit: aut retineat, quod judicaverit: aut tradat, quod retinuerit. Necesse igitur est, ut totidem sint artes rationales: ars inquisitionis seu inventionis: ars examinis seu judicii: ars custodiæ seu memoriæ: et ars elocutionis seu traditionis. De quibus jam sigillatim dicemus.

CAPUT SECUNDUM.

Partitio inventivæ in inventivam artium et argumentorum: quodque prior harum (quæ eminet) desideretur. Partitio inventivæ artium in experientiam literatam, et organum novum. Delineatio experientiæ literatæ.

Inventionis duæ sunt species, valde profecto inter se discrepantes; una artium et scientiarum; altera argumentorum et sermonum. Priorem harum desiderari prorsus pronuncio; qui quidem talis mihi videtur esse defectus, ac si quis in inventario conficiendo bonorum alicujus defuncti ita referat; numeratæ pecuniæ nihil. Ut enim cætera omnia pecunia parantur: ita et per hanc artem reliquæ acquiruntur. Atque sicut India occidentalis nunquam nobis inventa fuisset, nisi præcessisset acus nauticæ inventio; licet regiones illæ immensæ, versoriæ motus pusillus sit; ita non est cur miretur quispiam, in artibus perlustrandis et promovendis ampliores progressus factos non esse; quandoquidem ars ipsa inveniendi et perlustrandi scientias hactenus ignoretur.

Hanc scientiæ desiderari partem plane in confesso est. Primo enim dialectica nihil profitetur, imo ne cogitat quidem, de inveniendis artibus, sive mechanicis, sive (quas vocant) liberalibus; aut etiam de illarum operibus, harum vero axiomatibus eliciendis; sed quasi præteriens homines alloquitur, et dimittit, edicens, ut cuique in sua arte credant. Celsus, vir prudens, non solum medicus (licet moris sit omnibus in laudes artis propriæ effundi) gravitur et ingenue, de empiricis et dogmaticis medicorum sectis loquens, fatetur; "Medicamenta et remedia prius fuisse inventa, de causis vero et rationibus posterius disceptatum; non ordine converso, causas ex natura rerum primo erutas fuisse, easque inventioni remediorum præluxisse." At Plato non semel innuit "Particularia infinita esse; maxime rursus generalia minus certa documenta exhibere: medullam igitur scientiarum, qua artifex ab imperito distinguitur, in mediis propositionibus consistere, quas per singulas scientias tradidit et docuit experientia." Quin et illi, qui de primis inventoribus, aut scientiarum originibus, verba fecerunt, casum potius, quam artem, celebrarunt; atque animalia bruta, quadrupedes, aves, pisces, serpentes, magis quam homines, tanquam scientiarum doctores, introduxerunt:

> "Dictæmnum genitrix Cretæa carpit ab Ida,
> Puberibus caulem foliis, et flore comantem
> Purpureo: non illa feris incognita capris
> Gramina, cum tergo volucres hæsere sagittæ."
> Æneid. xii. 412.

Adeo ut minime mirum sit (cum in more apud antiquos fuerit rerum utilium inventores consecrare) apud Ægyptios, gentem priscam (cui plurimæ artes initia sua debent) templa plena fuisse simulacris brutorum; hominum vero simulacris prope vacua;

> "Omnigenumque deum monstra, et latrator Anubis,
> Contra Neptunum, et Venerem, contraque Minervam, etc."
> Æneid. viii. 698.

Quod si malis, ex traditione Græcorum, artes potius hominibus ut inventoribus tribuere; haudquaquam tamen dixeris Prometheum ad ignis inventionem contemplationes adhibuisse; aut cum silicem primo percuteret, scintillas expectasse: sed casu in illud incidisse, atque (ut aiunt) furtum Jovi fecisse. Ita ut ad artium inventionem quod attinet, capræ sylvestri pro emplastris, philomelæ pro modulationibus

musicis, ibidi pro lavationibus intestinorum, operculo ollæ, quod dissiliit, pro re tormentaria, denique (ut verbo dicamus) casui aut cuivis alteri rei plus debeamus, quam dialecticæ. Nec vero multo aliter se habet modus ille inveniendi, quem recte describit Virgilius: Georg. i. 133.

> " Ut varias usus meditando extunderet artes
> Paulatim."—

Non enim alia hic proponitur inveniendi methodus, quam cujus bruta ipsa sunt capacia, et quam crebro usurpant: nimirum attentissima circa unam rem solicitudo, ejusque perpetua excreitatio, quas sui conservandi necessitas hujusmodi animantibus imponit. Ciecro enim vere admodum; " Usus uni rei deditus, et naturam et artem sæpe vincit." Quare si prædicetur de hominibus,

> —" Labor omnia vincit
> Improbus, et duris urgens in rebus egestas:"

etiam de brutis similiter quæritur,

> " Quis expedivit psittaco suum Χαῖρε?"

Corvo quis auctor fuit, ut magna siccitate lapillos immitteret arbori cavæ, ubi aquam forte conspexerit, ut surgentem laticem rostro posset attingere? Quis viam monstravit apibus, qui per aërem, tanquam vastum mare, agros floridos, licet multum ab alvearibus dissitos, solent petere, et favos suos denuo repetere? Quis formicam docuit, ut grana in colliculo suo reponenda circumroderet prius, ne reposita germinarent, et spem suam illuderent? Quod si in versu illo Virgiliano quis notet verbum illud *extundere*, quod difficultatem rei; et verbum illud *paulatim*, quod tarditatem innuit; redibimus unde profecti sumus, ad Ægyptiorum illos deos; cum hactenus homines modice rationis facultate, nentiquam vero officio artis, usi sint ad inventa detegenda.

Secundo, hoc ipsum, quod asserimus (si advertatur paulo diligentius) demonstrat inductionis forma, quam proponit dialectica; qua scilicet scientiarum principia inveniantur et probentur; quæ vitiosa planc est et incompetens, et naturam tantum abest ut perficiat, ut etiam eam pervertat et detorqueat. Qui enim modum acute introspexerit, quo ros iste æthereus scientiarum, similis illi de quo loquitur poëta,

> " Aerei mellis cœlestia dona,"

colligatur (cum et scientiæ ipsæ ex exemplis singulis, partim naturalibus, partim artificialibus, tanquam prati floribus et horti, extrahantur) reperiet profecto animum suapte sponte, et nativa indole, inductionem solertius conficere, quam quæ describitur a dialecticis; siquidem ex nuda enumeratione particularium (ut dialectici solent) ubi non inveniur instantia contradictoria, vitiose concluditur; neque aliquid aliud hujusmodi inductio producit, quam conjecturam probabilem. Quis enim in se recipiet, cum particularia, quæ quis novit, aut quorum meminit, ex una tantum parte compareant; non delitescere aliquod, quod omnino repugnet? Perinde ac si Samuel acquievisset in illis Isai filiis, quos coram adductos videbat in domo; et minime quæsivisset Davidem, qui in agro aberat. Atque hæc inductionis forma (si verum omnino dicendum sit) tam pinguis est et crassa, ut incredibile videatur, tam acuta et subtilia ingenia (qualia in his rebus meditationes suas excreuerunt) potuisse eam mundo obtrudere; nisi illud in causa fuisset, quod opera festinata ad theorias et dogmata contendissent: particularia autem (præsertim moram in iis longiorem) ex fastu quodam et elatione animi, despexissent. Illi enim exempla, sive instantias particulares, vice lictorum aut viatorum adhibuerunt ad summovendam turbam, ut dogmatibus suis viam aperirent; neutiquam autem ea inde ab initio in consilium advocarunt, ut legitima fieret et matura de rerum veritate deliberatio. Certe perculserit animos pia et religiosa quædam admiratio, cum videamus eadem calcata vestigia, ad errorem ducentia, in divinis et humanis. Quemadmodum enim in divina veritate percipienda ægre quis in animum inducat, ut fiat tanquam parvulus; ita in humana perdiscenda, provectos utique, puerorum more, prima inductionum elementa adhuc legere et retractare, res humilis existimatur et quasi contemnenda.

Tertio, si concedatur, principia scientiarum ex inductione, qua utuntur, vel sensu et experientia, recte posse constitui; certissimum est tamen, axiomata inferiora ab iis per syllogismum non posse (in rebus naturalibus, quæ participant ex materia) recte et tuto deduci. In syllogismo enim fit reductio propositionum ad principia per propositiones medias. Hæc autem sive inveniendi sive probandi forma in scientiis popularibus (veluti ethicis, politicis, legibus, et hujusmodi) locum habet: imo et in theologicis; quandoquidem Deo pro bonitate sua placuerit captui humano se accommodare: at in physicis, ubi natura opere, non adversarius argumento constringendus est, elabitur plane veritas ex manibus; propter longe majorem naturalium operationum, quam verborum subtilitatem: adeo ut succumbente syllogismo, inductionis (veræ scilicet et emendatæ) officio ubique opus sit, tam ad principia magis generalia, quam ad propositiones inferiores. Nam syllogismi ex propositionibus consistunt; propositiones ex verbis; verba notionum tesseræ sunt. Quare si notiones ipsæ (quæ verborum animæ sunt) male et varie a rebus abstrahantur, tota fabrica corruit. Neque laboriosa vel consequentiarum argumentorum, vel veritatis propositionum examinatio, rem in integrum unquam restituet; cum error sit (ut loquuntur medici) in digestione prima; quæ a functionibus sequentibus non rectificatur. Non igitur absque magna, et evidenti causa evenit, ut complures ex philosophis (aliqui autem eorum maxime insignes) academici fuerint et sceptici qui scientiæ humanæ et syllepsium certitudinem sustulerunt; ultra verisimilitudinem aut probabilitatem negantes eam pertingere. Inficias non iverim, visum esse nonnullis, Socratem, cum scientiæ certitudinem a se amoveret, per ironiam tantum hoc fecisse; et scientiam dissimulando simulasse: renunciando scilicet iis, quæ manifesto sciebat, ut eo modo, etiam quæ nesciebat, scire putaretur. Neque etiam in recentiore academia (quam amplexus est Cicero) illa opinio acatalepsiæ admodum sincere culta fuit. Etenim qui

eloquentia floruerunt, hanc fere sectam sibi desumpserunt, ut in utramque partem copiose disserendi gloriam assequerentur: unde a via illa recta, per quam ad veritatem pergere debuissent, tanquam ad deambulationes quasdam amœnas, animi causa institutas, deflexum est. Constat tamen, nonnullos sparsim in utraque academia (veteri et nova) multo magis inter scepticos, acatalepsiam istam simpliciter et integre tenuisse. Verum in hoc maxime ab illis peccatum est; quod sensuum perceptiones calumniabantur; unde scientias radicitus evellebant. Sensus vero, licet sæpenumero homines aut fallant, aut destituant, possint tamen multa adjuti industria ad scientias sufficere; idque non tam ope instrumentorum (licet et hæc quoque aliqua ex parte prosint) quam experimentorum ejus generis, quæ objecta subtiliora, quam pro sensus facultate, ad objecta sensu comprehensibilia producere queant. Debuerant autem potius defectum hac in parte imputasse mentis tum erroribus, tum contumaciæ (quæ rebus ipsis morigera esse recusat) et pravis demonstrationibus, et modis ratiocinandi, et concludendi, ex perceptione sensuum, perperam institutis. Hæc autem loquimur, non quo intellectui detrahatur, aut negotium totum deseratur, sed quo intellectui auxilia commoda comparentur et subministrentur, quibus rerum ardua et naturæ obscuritatem vincere possunt. Nemo enim tanta pollet manus constantia, aut etiam habitu, ut rectam lineam ducere, aut perfectum circulum circumscribere, manu libera possit; quod tamen ope regulæ, aut circini, facere in promptu est. Hæc igitur res ipsa est, quam paramus, et ingenti conatu molimur; ut scilicet mens per artem fiat rebus par; utque inveniatur ars quædam indicii et directionis, quæ cæteras artes, earumque axiomata, atque opera detegat, et in conspectum det. Hanc enim merito desiderari posuimus.

Ars ista indicii (ita enim eam appellabimus) duas habet partes: aut enim defertur indicium ab experimentis ad experimenta: aut ab experimentis ad axiomata, quæ et ipsa nova experimenta designent. Priorem harum experientiam literatam nominabimus, posteriorem vero interpretationem naturæ, sive novum organum. Prior quidem (ut alibi attigimus) vix pro arte habenda est, aut parte philosophiæ, sed pro sagacitate quadam; unde etiam eam venationem Panis (hoc nomen ex fabula mutuati) quandoque appellamus: attamen quemadmodum possit quis, in via sua, triplici modo progredi; aut cum palpat ipse in tenebris; aut cum alterius manu ducatur, ipse parum videns; aut denique cum vestigia lumine adhibito regat: similiter cum quis experimenta omnigena absque ulla serie, aut methodo tentet; ea demum mera est palpatio: cum vero nonnulla utatur in experimentando directione et ordine, perinde est, ac si manu ducatur. Atque hoc illud est, quod per experientiam literatam intelligimus: nam lumen ipsum, quod tertium fuit, ab interpretatione naturæ, sive novo organo, petendum est.

Literata experientia, sive venatio Panis, modos experimentandi tractat: eam (cum desideruri posuerimus, neque res sit plane perspicua) pro more et instituto nostro aliquatenus adumbrabimus. Modus experimentandi præcipue procedit, aut per variationem experimenti; aut per productionem experimenti; aut per translationem experimenti; aut per inversionem experimenti; aut per compulsionem experimenti; aut per applicationem experimenti; aut per copulationem experimenti; aut denique per sortes experimenti. Universa vero ista cohibita sunt citra terminos axiomatis alicujus inveniendi. Illa enim altera pars de novo organo, omnem transitionem experimentorum in axiomata, aut axiomatum in experimenta, sibi vindicat.

Variatio experimenti fit primo in materia; scilicet, quando experimentum in jam cognitis, certæ materiæ fere adhæsit; nunc vero in illis, quæ similis sunt speciei, tentetur: veluti confectio papyri in pannis linteis tantum probata est, in sericis minime (nisi forte apud Chinenses) neque rursus in filaceis, compositis ex setis et pilis, ex quibus conficitur (quod vocamus) camelotum; neque denique in lanceis, gossypio, et pellibus; quanquam hæc tria postrema magis esse videntur heterogenea. Itaque admisceri possint potius, quam per se utilia esse. Item insitio in arboribus fructiferis in usu est, in arboribus sylvestribus raro tentata; licet perhibeatur ulmum in ulmum insitam miras producere foliorum umbras. Insitio etiam in floribus rara admodum est, licet hoc jam cœperit fieri in rosis muscatellis, quæ rosis communibus feliciter innoculantur. Etiam variationem in parte rei, inter variationes in materia ponimus. Videmus enim, surculum in trunco arboris insitum felicius pullulare, quam si terræ indatur. Cur non et semen cepæ capiti alterius cepæ viridis inditum, felicius germinet, quam si nudæ terræ commissum fuerit? Atque hic radix pro trunco variatur, ut hæc res insitio quædam in radice videri possit. Variatio experimenti fit secundo in efficiente: radii solis per specula comburentia, calore ita intenduntur, ut materiam, quæ ignem facile concipiat, accendere possint: num et radii lunæ, per eadem, ad lenissimum aliquem gradum teporis actuari possunt, ut videamus, utrum corpora omnia cœlestia sint potestate calida? Item calores radiosi, per specula scilicet, intenduntur: num etiam calores opaci (quales sunt lapidum et metallorum antequam candeant) idem patiuntur; an potius sunt luminis in hac re partes nonnullæ? Item succinum et gagates fricata paleas trahunt; num etiam et ad ignem tepefacta? Variatio experimenti fit tertio in quanto: circa quod diligens admodum est adhibenda cura, cum hoc multi circumstent errores. Credunt enim homines, aucta aut multiplicata quantitate, pro rata augeri aut multiplicari virtutem. Et hoc fere postulant et supponunt, tanquam res sit mathematicæ cujusdam certitudinis; quod omnino falsissimum est. Globus plumbeus unius libræ a turri demissus (puta) decem pulsuum spatio, ad terram descendit: num globus duarum librarum (in quo impetus iste, motus, quem vocant, naturalis, duplicari debet) spatio quinque pulsuum terram feriet? At ille æquali fere tempore descendet, neque accelerabitur juxta rationem quanti. Item sulphuris (puta) drachma una semilibræ chalybis admixta, eam fluere faciet et colliquari: num igitur uncia sulphuris, quatuor libris chalybis, ad colliquationem sufficiet? At illud non sequitur. Certum enim est, obstinationem materiæ in patiente, per quantitatem,

augeri amplius, quam activitatem virtutis in ngeote. Porro nimium æque fallit ac parum. Etenim in excoctionibus et depurationibus metallorum, error est familiaris, ut ad excoctionem promovendam, aut calorem fornacis, aut ndditamenti, quod injiciuot, molem augeant. At illa supra modum aucta operationem impediunt; propterea quod vi et acrimonia sua multum ex metallo puro in fumos vertant et asporteot; ut et jactura fiat; et massa, quæ remanet, magis sit obstinata et dura. Debent igitur homines ludibrium illud mulieris Æsopi eogitare: quæ sperarut, ex duplicata mensura hordei gallinam suam duo ova quotidie pariturum: nt illa impioguata nullum peperit. Prorsus non tntum fuerit alieni experimento naturali confidere, nisi facta fuerit probatio, et in minore, et in majore quanto. Atque de variatione experimenti hactenus.

Productio experimenti duplex; repetitio, et extensio: nimirum, cum aut experimentum iteratur, aut ad subtilius quiddam urgetur. Repetitionis exemplum tale sit. Spiritus vini fit ex vioo per destillationem unicam; estque vino ipso multo acrior et fortior: num etiam spiritus vini ipse destillatus sive sublimatus, se ipsum fortitudine æque superabit? At repetitio quoque non absque fallacin est: etenim, tum secunda exaltatio, prioris excessum non æquat; tum etiam sæpenumero per iterationem experimenti, post statum sive nemen quandam operationis, tantum abest ut progrediatur natura, ut potius relabatur. Judicium igitur in hac re ndhibeodum. Item argentum vivum, in linteo, aut alias in medio plumbi liquefacti, eum refrigescere cœperit, insertum, stupefit; nec amplius fluit: num et idem argentum vivum, si sæpius immissum fuerit, ita figetur, ut fiat malleabile? Extensionis exemplum tale sit: aqua in summo posita, et pensilis facta, et per rostrum vitri oblongum in vinum dilutum immersa, separabit aquam a vino: vino in summum se paulatim recipiente, aqua in imo subsidente: num etiam, quemadmodum vinum et aqua (corpora scilicet diversn) hoc ingenio sepnrantur, possint quoque partes vini (corporis nimirum integri) subtiliores n crassioribus separari; nt fiat tanquam destillatio, per pondus, et in summo reperiatur aliquid spiritui vini proximum, sed forte delicatius? Item magnes ferrum integrum trahit: num etinm frustrum magnetis in dissolutione ferri immersum, ferrum ad se alliciet, et se ferro obducet? Item, versorium acus nauticæ se ad polos mundi applicat: num etiam eadem via et coosecutione, qua cœlestia? Videlicet, ut si quis acum in contrario sitn, hoc est, in puncto australi ponat, et paulisper teneat, ac deinde vim omittat: num forte acus ad septentriones se conferet, eligendo potius rotare per occidentem in situm desideratum, quam per orientem? Item, aurum argentum vivom, juxta positum, imbibit: num vero aurum recipit illud argentum vivum intra se, sine extensione molis suæ, ut fiat massa quædsm ipso auro ponderosior? Item, homines memoriæ serviunt, collocando imagines personnrum in locis. Num etiam idem assequentur, missis locis, et affingendo actiones aut habitus personis? Atque de productione experimenti hactenus.

Translatio experimenti triplex: aut a natura vel casu in artem: aut ab arte vel practica alia in aliam: aut a parte alicujus artis in partem diversam ejusdem. Translntionis a natura aut casu in artem innnmera sunt exempla: adeo ut omnes fere artes mechanicæ, a tenuibus initiis, natnra aut casn præbitis, ortum habuerint. Adagio receptum erat, "botrum contra botrum citius matureseere:" id qnod de mutuis amicitiæ operis et officiis increbuit. At nostri cydræ (vini scilicet ex pomis) confectores, hoc optime imitantur. Cavent enim ne poma tundantur nut exprimantur, antequam, nonnullo tempore in acervos conjecta, mutoo eontactu maturuerint; unde nimia potus nciditas emendetur. Item, Iridum artificiosarum imitatio ex aspersione spissa guttularum, ab iridibus naturalibus ex nobe roscida, facili duetu translata est. Item, modus destillandi, vel ex alto peti, ex imbribus scilicet, aut rore; vel ex humili illo experimento guttarum, in patinis ollis aquæ bullientis superimpositis, adhærentinm, desumi potuit. Tonitrua autem et fulgura imitari veritus quis esset, nisi operculum monachi illius chemici, magno impetu et fragore, subito in sublime jactum, submonuisset. Verum quo hæc rea magis exemplis abuodet, eo pauciora adducere opus fuerit. Debuerant antem homines, si illis utilin inquirere vacaret, naturalia opificin et operationes singulas, attente, et minutim, et ex composito intueri; et secum perpetuo, et acriter cogitare, quænam ex ipsis ad artes transferri possit. Speculum enim artis nntura: nec paociora sunt experimenta, quæ ab arte in artem, seu a practica in practicam, transferri possunt; licet hoc rarius in usu sit. Natura enim ubique omnibns occurrit; at artes singulæ artificibus tantum propriis cognitæ sunt. Specilla oculnria ad visum debilem juvandum inventa sunt: num et comminisci quis queat aliquod instrumentnm, quod auribus appensum surdastris ad audiendum juvet? Item, imbalsamationes et mel eadavera conservant; annon possit aliquid ex his in medicinam transferri, quod etiam vivis corporibus prosit? Item, sigillorum practica in cera, cæmentis, et plumbo, antiqun fuit: at hæc etiam impressioni in chartis, sive arti typographicæ, viam monstravit. Item, sal in eoquinaria carnes condit, idque melius hieme, quam æstate. Annon hoc ad balnea utiliter transferri possit, eorumque temperamentum, qunndo opus fuerit, vel imprimendum, vel extrahendum? Item, sal in nupero experimento, de conglaciationibus artificialibus, magnas vires ad condensandum obtinere reperitur: annon possit hoc transferri ad condensationes metallorum: cum jampridem notum sit, aquas fortes, ex nonnullis salibus compositas, dejicere et præcipitare arenulas auri ex metallis aliquibus auro ipso minus densis? Item pictoria imagine memoriam rei renovat: annon hoc traductum est in artem eam, quam vocant, memoriæ? De his in genere monitum sit; quod nihil ad imbrem quendam inventorum utilium, eorundemque novorum, veluti cœlitus deducendum, tantum valere possit, quantum, si experimenta complurium artium mechanicarum, nni homini, aut paucis, qui se invicem colloquiis acuere possint, in notitiam venerint: ut per hanc, qoam dicimus, experimentorum translationem, artes se mutuo fovere, et veluti commixtione radiorum accendere possint.

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Quamvis enim vio rationalis per organum longe majora spondeat; attamen hæc sagacitas, per experientiam literatam, plurima interim ex iis, quæ in proximo sunt, in genus humanum, tanquam missilia apud antiquos donativa, projiciet et sparget. Superest illa translatio de parte artis in partem diversam; quæ parum differt a translatione de arte in artem: verum quia artes nonnullæ spatia magna occupant, ut etiam translationem experimentorum ferre intra se ipsas possint, hanc etism speciem translationis snbjungere visum est: præcipue, quia magni prorsus est in nonnulla arte momenti. Plurimum enim ad artem medicinæ amplificandam profuerit, si experimenta partis illius medicinæ de curationibus morborum ad partes illas de tnenda sanitatc, et prolongatione vitæ, transferantur. Si enim opiatum aliquod insigne ad spiritunm, in morbo pestilenti, furibundam incensionem reprimendam suffecerit, non dubitet quispiam, quin simile aliqnod, debita dosi familiare redditum, etiam incensinnem eam gliscentem, et obrepentem, quæ per ætatem fit, aliqna ex parte frænare et retardare possit. Atque de translatione experimenti hactenus.

Inversio experimenti fit, cum contrarinm ejus, quod experimento constat, probatur. Exempli grnia: calidum per specula intenditur: num etiam frigidum? Item, calidum se diffundendo, fertur tamen potius in sursum: num etiam frigidum se diffundendo, fertnr magis in deorsum? Exempli gratia: accipias bacillum ferreum, illudque in uno fine calefacias; et deinde erigas ferrum, parte calefacta subtns locata; in superiore parte manu apposita, actntnm manum aduret; parte autem calefacta supra locata, et manu subtus, multo tardius aduret. Num etiam, si totum bacillum calefiat, et finis alter nive, vel spongia, in aqua frigida tincta, madefiat: si nix ant spongia superins locetur, num (inquam) frigus deorsum mittet citius, quam inferius locata, sursum? Item, radii solis supra album dissiliunt, supra nigrum congregantur: num etiam umbræ super nigrum disperduntur, snper album congregantur? Id quod in loco tenebroso, luce per foramen exiguum tantum immissa, fieri videmus, nbi imagines rerum, quæ foras sunt, super papyrum, quæ alba est, excipiuntur, super nigram minime. Item, vena frontis ad dnlorem hemicranicum inciditur: num etiam hemicranium scarificatur ad sodam? Atque de inversione experimenti hactenus.

Compulsio experimenti fit, ubi urgetur et producitur experimentum, ad annihilationem vel privationem virtutis: in reliquis enim venationibus, fera eapitur tantum; at in ista, occiditur. Exemplum compnlsionis tale est. Magnes ferrum trahit: nrge ergo ferrum, aut urge magnetem, ut amplius non fiat attractio: vclnti, num forte si magnes ustus fnerit, aut in aquis fortibus maceratus, virtutem suam deponet, aut saltem remittet? Contra, si chalybs ant ferrum in crocum martis redigantur, vel in chalybem, quem vocant præparatum, vel etiam in aqua forti solvantur, num adhuc ea alliciat magnes? Rursus. Magnes ferrum trahit per nniversa, quæ novimns, media; nempe si interponstur aurum, argentum, vitrum. Urge igitur aliquod medium, si fieri possit, quod virtutum intercipiat: probetur argentum vivum: probentur oleum, gummi, carbo ignitus, et alia, quæ adhuc probata non sunt. Item, introducta sunt nuper perspicilla, quæ visibilia minuta miris modis multiplicent. Urge usum eorum, vel ad species tam pusillas, nt amplius non valeant: vel ita grandiusculas, nt confundantur. Scilicet, num poterint illa in urina clare detegere ea, quæ alias non perspicerentur? Num poterint in gemmis, ex omni parte puris et nitidis, grana aut nubeculas cnnspicienda dare? Num et pulviscula in sole (quæ Democrito pro atomis suis, et principiis rerum, falsissime objiciebantur) tanquam corpora grandiuscula monstrare? Num pulverem erassiusculum, ex cinnabari, et cerussa, ita ostendere distributum, ut appareant hic granula rubra, illic alba? Num rursus, imagines majores (puta faciem, oculum, etc.) in tantum multiplicatas ostendere, in quantum pulicem, aut vermiculum? Num byssum, aut hujusmodi textile linteum delicatius, et paulo apertius, ita foraminatum ostendere, ac si esset rete? Verum in compulsionibus experimentorum minus moramur, quia fere extra limites experientiæ literatæ cadunt, et ad causas, et axiomata, et novum organum potius spectant. Ubicnnque enim fit negativa, aut privativa, ant exclusiva; cœpit jam præberi lux nonnulla ad inventionem formarum. Atque de cnmpulsione experimenti hactenus.

Applicatin experimenti nihil aliud est, qnam ingeniosa traductio ejus, ad experimentum aliud aliquod ntile. Exemplum tale sit. Corpora quæque suas habent dimensiones, sua pondera: aurum plns ponderis, minus dimensionis, quam argentnm; aqua, qnam vinum. Ab hoc tradncitur experimentum ntile, ut ex mensura impleta, et pondere exeepto, possis dignoscere quantnm argenti fuerit admixtum auro, vel aquæ vino. Quod fuit Εὕρηκα illud Archimedis. Item, carnes in nonnullis cellis citius putrefiunt, quam in aliis: ntile fuerit, experimentum hoc traducere ad dignoscendos aëres, magis aut minus salubres ad habitationem; ubi scilicet carnes diutius vindicentur a putredine: possit idem applicari ad revelandas salubriores aut pestilentiores tempestates anni. Verum innumera sunt ejusmodi. Evigilent modo homines: et oculos perpetun, alias ad naturam rerum, alias ad usus humanos vertant. Atque de applicatione experimenti hactenus.

Copnlatio experimenti est applicationum nexus et catena; cum, quæ singula profutura non fuissent ad usum aliquem, cnnnexa valeant. Exempli gratia; rosas aut fructus serotinos habere cupis; hoc fiet, si gemmas præcociores avellas; idem fiet, si radices, usque ad ver adultum, denudes, et aëri exponas; at multn magis si copuletur utrumque. Item, nd refrigerandum maxime faciunt glacies, et nitrum; utrumque commixtum multo magis. Verum et hæc res per se perspicua est. Attamen fallacia ei sæpe subesse possit (ut et omnibus, ubi desunt axiomata) si copula fiet ex rebus, quæ diversis, et quasi pugnantibus modis operantur. Atque de copulatione experimenti hactenus.

Restant sortes experimenti. Hic vero experimentandi modus plane irrationalis est, et qnasi furiosus; cum aliquid experiri velle animnm subeat, non quia aut ratio, aut aliquod aliud experimentum te ad illud deducat, sed prorsus, quia similis res adhuc nunquam

tentata fuit. Haud tamen scio an in hac ipsa re (de qua nunc agimus) non aliquid magni lateat: si, inquam, omnem lapidem in natura moveas. Magnalia enim naturæ fere extra vias tritas et orbitas notas jacent, ut etiam absurditas rei aliquando juvet. At si ratio simul comitetur, id est, ut et manifestum sit, simile experimentum nunquam tentatum fuisse, et tamen causa subsit magna, cur tentetur; tum vero hæc res ex optimis est, et plane sinus naturæ excutit. Exempli gratia: in operatione ignis super aliquod corpus naturale, alterum horum haetenus semper evenit, ut aut aliquid evolet (veluti flamma et fumus, in combustione vulgari) aut saltem fiat separatio partium localis, et ad nonnullam distantiam, ut in destillationem, ubi fæces subsident, vapores in receptacula, postquam luserint, congregantur. At destillationem elausam (ita enim eam vocare possumus) nemo mortalium adhuc tentavit: verisimile autem videtur vim caloris, si intra elaustra corporis sua in alterando edat facinora; cum nec jactura fiat corporis, nec etiam liberatio; tum demum hunc materiæ Proteum, veluti manieis detentum, ad complures transformationes adacturam, si modo calor ita temperetur et alternetur, ut non fiat vasorum confractio. Est enim hæc res matriei similis naturali, ubi calor operatur, nihil corporis aut emittitur aut separatur: nisi quod in matrice conjungatur alimentatio; verum quatenus ad versionem eadem res videtur. Tales igitur sunt sortes experimenti.

Illud interim, circa hujusmodi experimenta monemus; ut nemo animo concidat, aut quasi confundatur, si experimenta, quibus incumbit, expectationi suæ non respondeant. Etenim quod succedit, magis complaeet; at quod non succedit, sæpenumero non minus informat. Atque illud semper in animo tenendum (quod perpetuo inculcamus) experimenta lucifera etiam adhuc magis quam fructifera ambienda esse. Atque de literata experientia hæc dieta sint, quæ (ut jam ante diximus) sagaeitas potius est, et odoratio quædam venatica, quam scientia. De novo organo autem silemus, neque de eo quicquam prælibamus; quoniam de eo (cum sit res omnium maxima) opus integrum (annuente favore divino) confieere nobis in animo est.

CAPUT TERTIUM.

Partitio inventivæ argumentorum in promptuariam et topicam. Partitio topicæ, in generalem et particularem. Exemplum topicæ particularis, in inquisitione de gravi et levi.

Inventio argumentorum, inventio proprie non est. Invenire enim est ignota detegere, non ante cognita recipere aut revocare. Hujusce autem inventionis usus atque officium non aliud videtur, quam ex massa scientiæ, quæ in animo congesta et recondita est, ea, quæ ad rem aut quæstionem institutam faciunt, dextere depromere. Nam cui parum aut nihil de subjecto, quod proponitur, innotuit, ei loci inventionis non prosunt; contra, cui domi paratum est, quod ad rem adduci possit, is etiam absque arte, et locis inventionis, argumenta tandem (licet non ita expedite et commode) reperiet et producet. Adeo ut hoc genus inventionis (sicut diximus) inventio proprie non sit; sed reductio tantum in memoriam, sive suggestio eum applicatione. Attamen, quoniam vocabulum invaluit et receptum est, vocetur sane inventio; siquidem etiam feræ alicujus venatio et inventio, non minus cum illa intra vivariorum septa indagetur, quam cum in saltibus apertis, dici possit. Missis vero verborum scrupulis, illud constet, scopum et finem hujusce rei esse promptitudinem quandam et expeditum usum cognitionis nostræ, potius quam ejusdem amplificationem aut inerementum.

Atque ut parata sit at disserendum copia, duplex ratio iniri potest. Aut ut designetur et quasi indice monstretur, ad quas partes rem indagare oporteat; atque hæc est ea, quam vocamus topicam. Aut ut jam antea composita sint, et in usum reposita argumenta, circa eas res, quæ frequentius incidunt et in disceptationem veniunt; atque hanc promptuariam nominabimus. Hæc autem posterior tanquam scientiæ pars vix dici meretur, cum in diligentia potius consistat, quam in eruditione aliqua artificiosa. Veruntamen hac in parte Aristoteles, ingeniose quidem, sed tamen damnose, sophistas sui temporis deridet, inquiens: "Perinde illos facere, ac si quis calcearium professus, rationem calcei conficiendi non doceret, sed exhiberet tantum calceos complurimos, diversæ tam formæ quam magnitudinis." Attamen hic regerere liceat; calcearium, si in officina nil calceorum haberet, neque eos consueret nisi rogatus; egenum prorsus mansurum, et perpaucos inventurum emptores. Sed longe aliter Salvator noster, de divina scientia verba faciens, inquit, "Omnis scriba doctus in regno cœlorum similis est homini patrifamilias, qui profert de thesauro suo nova et vetera." Videmus etiam, priscos rhetores oratoribus præcepisse, ut præsto haberent locos communes varios, jam pridem adornatos, et in utramque partem tractatos et illustratos: exempli gratia, Pro sententia legis adversus verba legis; et e contra: Pro fide argumentorum adversus testimonia; et e contra. Cicero autem ipse, longa doctus experientia, plane asserit, posse oratorem diligentem et sedulum jam præmeditata et elaborata habere, quæcunque in disceptationem venient: adeo ut in causæ ipsius actione, nihil novum, aut subitum inseri neeesse fuerit, præter nomina nova, et circumstantias aliquas speciales. At Demosthenis diligentia et solicitudo eo usque processit, ut quoniam primus ad causam aditus et ingressus ad animos auditorum præparandos plurimum virium haberet, operæ pretium putaret complura coneionum et orationum exordia componere et in promptu habere. Atque hæc exempla et auctoritates merito Aristotelis opinioni præponderare possint, qui nobis auctor foret ut vestiarium cum forfice commutaremus. Itaque non fuit omittenda hæc pars doctrinæ circa promptuariam, de qua hoc loco satis. Cum enim sit utrique, tam logicæ, quam rhetoricæ communis; visum est eam hic inter logica cursim tantum perstringere; pleniorem ejus tractationem ad rhetoricam rejicientes.

Partem alteram inventivæ (nimirum topicam) partiemur in generalem, et partienlarem. Generalis

illa est, quæ in dialectica diligenter et abunde tractata est; ut in ejus explicatione morari non sit opus. Illud tamen obiter monendum videtur, topicam istam non tantum in argumentationibus, ubi cum aliis manum conserimus; verum et in meditationibus, cum quid nobiscum ipsi commentamur aut revolvimus, valere. Imo, neque solummodo in hoc sitam esse, ut inde fiat suggestio aut admonitio, quid affirmare, aut asserere; verum etiam quid inquirere aut interrogare debeamus. At prudens interrogatio, quasi dimidium scientiæ. Recte siquidem Plato, "Qui aliquid quærit, id ipsum, quod quærit, generali quadam notione comprehendit: aliter, qui fieri potest, ut illud, cum fuerit inventum, agnoscat?" Idcirco quo amplior et certior fuerit anticipatio nostra, eo magis directa et compendiosa erit investigatio. Iidem igitur illi loci, qui ad intellectus nostri sinos intra nos excutiendos, et congestam illic scientiam depromendam, conducent, etiam ad scientiam extrinsecus hauriendam juvabunt: ita ut si præsto fuerit quis rei gnarus et peritus, commode et prudenter de ea interrogari a nobis possit; et similiter auctores, et libri, et partes librorum, qui nos de iis, quæ quærimus, edoceant et informent, utiliter deligi et evolvi.

At topica particularis ad ea, quæ dicimus, longe confert magis, et pro re fructuosissima habenda est. Illius certe mentio levis a nonnullis scriptoribus facta est; sed integre et pro rei dignitate minime tractata. Verum missum facientes vitium illud et fastum, quæ nimium diu regnarunt in scholis; videlicet, ut quæ præsto sint, infinita subtilitate persequantur; quæ paulo remotiora, ne attingant quidem: nos sane topicam particularem, tanquam rem apprime utilem, amplectimur; hoc est, locos inquisitionis et inventionis particularibus subjectis et scientiis appropriatos. Illi autem mixturæ quædam sunt ex logica et materia ipsa propria singularum scientiarum. Futilem enim esse constat, et angusti cujusdam animi, qui existimet artem de scientiis inveniendis, perfectam jam a principio, excogitari et proponi posse; eandemque postea in opere poni et exerceri debere. At certo sciant homines, artes inveniendi solidas et veras adolescere et incrementa sumere cum ipsis inventis: adeo ut cum quis primum ad perscrutationem scientiæ alicujus accesserit, possit habere præcepta inventivæ nonnulla utilia: postquam autem ampliores in ipsa scientia progressus fecerit, possit etiam et debeat nova inventionis præcepta excogitare, quæ ad ulteriora eum felicius deducant. Similis est sane hæc res viæ initæ in planitie: postquam enim viæ partem aliquam fecerimus emensi, non tantum hoc lucrati sumus, ut ad exitum itineris propius accesserimus; verum etiam ut, quod restat viæ, clarius prospiciamus: eodem modo, in scientiis, gradus itineris quisque, ea, quæ a tergo reliquit, prætervectus, etiam illa, quæ supersunt, propius dat in conspectum. Hujus autem topicæ exemplum, quoniam eam inter desiderata reponimus, subjungere visum est.

TOPICA PARTICULARIS, SIVE ARTICULI INQUISITIONIS DE GRAVI ET LEVI.

1. Inquiratur, qualia sint corpora, quæ motus gravitatis sunt susceptibilia; qualia, quæ levitatis; et si quæ sint mediæ, sive adiaphoræ naturæ?

2. Post inquisitionem de gravitate et levitate simplicem, procedatur ad inquisitionem comparatam; quæ nimirum ex gravibus plus, quæ minus ponderent, in eodem dimenso? Etiam, quæ ex levibus celerius ferantur in altum, quæ tardius?

3. Inquiratur de eo, quid possit et operetur quantum corporis ad motum gravitatis? Atqui videatur hoc primo aspectu quasi supervacuum; quia rationes motus debeant sequi rationes quanti. Sed res aliter se habet: nam licet in lancibus quantitas gravitatem corporis ipsius compenset (viribus corporis undique cocuntibus per repercussionem, sive resistentiam lancium vel trabis) tamen ubi parva datur resistentia (veluti in decasu corporum per aërem) quantum corporis parum valet ad incitationem descensus; cum viginti pondo plumbi et libra una, eodem fere spatio cadant.

4. Inquiratur utrum quantum corporis ita augeri possit, ut motus gravitatis prorsus deponatur; ut fit in globo terræ, qui pensilis est, non cadit? Utrum igitur possint esse aliæ massæ tam grandes, ut se ipsæ sustentent? Nam latio ad centrum terræ res fictitia est; atque omnis massa grandis motum lationis quemcunque exhorret, nisi ab alio appetitu fortiori vincatur.

5. Inquiratur de eo, quid possit et operetur resistentia corporis medii, vel occurrentis, ad regimen motus gravitatis? Corpus vero descendens aut penetrat et secat corpus occurrens, aut ab eo sistitur. Si penetret, fit penetratio; aut cum levi resistentia, ut in aëre; aut cum fortiori, ut in aqua. Si sistatur, sistitur aut resistentia dispari, ubi fit prægravatio, ut si lignum superponatur ceræ; aut æqua, veluti si aqua superponatur aquæ, aut lignum ejusdem generis ligno; id quod appellat schola (apprehensione quadam inani) "Non ponderare corpus nisi extra locum suum." Atque hæc omnia motum gravitatis variant: aliter enim moventur gravia in lancibus, aliter in decasu: etiam aliter (quod mirum videri possit) in lancibus pendentibus in aëre, aliter in lancibus immersis in aqua; aliter in decasu per aquam; aliter in natantibus sive vectis super aquam.

6. Inquiratur de eo, quid possit et operetur figura corporis descendentis ad regendum motum gravitatis; veluti figura lata cum tenuitate, cubica, oblonga, rotunda, pyramidalis; et quando se vertant corpora, quando eadem, qua dimittuntur, positura permanent?

7. Inquiratur de eo, quid possit et operetur continuatio et progressio ipsius casus sive descensus ad hoc, ut majori incitatione et impetu feratur; et qua proportione et quousque invalescat illa incitatio? Si quidem veteres levi contemplatione opinati sunt (cum motus naturalis sit iste) eum perpetuo augeri et intendi.

8. Inquiratur de eo, quid possit et operetur distantia aut proximitas corporis descendentis a terra, ad hoc, ut celerius cadat, aut tardius, aut etiam non omnino (si modo fuerit extra orbem activitatis globi terræ; quæ Gilberti opinio fuit) atque simul de eo, quid operetur immersio corporis descendentis magis in profundum terræ, aut collocatio ejusdem propius ad superficiem terræ? Etenim hæc res etiam motum variat, ut operantibus in mineris perspectum est.

9. Inquiratur de eo, quid possit et operetur differentia corporum, per quæ motus gravitatis diffunditur et communicatur: atque utrum æque communicetur per corpora mollia et porosa, ac per dura et solida: veluti si trabs lancis sit ex altera parte lingulæ lignea, ex altera argentea (licet fuerint reductæ ad idem pondus) utrum non progignat variationem in lancibus? Similiter, utrum metallum, lanæ, aut vesicæ inflatæ, superimpositum, idem ponderet, quod in fundo lancis?

10. Inquiratur de eo, quid possit et operetur in communicatione motus gravitatis distantia corporis a libramine: hoc est, cita et sera perceptio incubitus sive depressionis: veluti in lancibus; ubi altera pars trabis est longior (licet reducta ad idem pondus) an inclinet hoc ipsum lancem? Aut in tubis arcuatis, ubi longior pars certe trahet aquam, licet brevior pars (facta silicet capacior) majus contineat pondus aquæ.

11. Inquiratur de eo, quid possit intermixtio sive copulatio corporis levis cum corpore gravi, ad elevandam corporis gravitatem, ut in pondere animalium vivorum et mortuorum?

12. Inquiratur de secretis ascensibus et descensibus partium leviorum et graviorum in uno corpore integro: unde fiant sæpe accuratæ separationes; ut in separatione vini et aquæ; in ascensione floris lactis, et similibus.

13. Inquiratur, quæ sit linea et directio motus gravitatis, et quatenus sequatur vel centrum terræ, id est, massam terræ; vel centrum corporis ipsius, id est, nixum partium ejus. Centra enim illa ad demonstrationes apta sunt, in natura nihil valeat.

14. Inquiratur de comparatione motus gravitatis cum motibus aliis; quos scilicet vincat, quibus cedat? Veluti in motu (quem appellant) violento, motus gravitatis compescitur ad tempus: etiam, cum pondus longe majus ferri ab exiguo magnete attollitur, cedit motus gravitatis motui sympathiæ.

15. Inquiratur de motu aëris, utrum feratur sursum, an sit tanquam adiaphorus? Quod difficile est inventu, nisi per experimenta aliqua exquisita: nam emicatio aëris in fundo aquæ fit potius per plagam aquæ, quam per motum aëris, cum idem etiam fiat in ligno. Aër autem aëri commixtus nihil prodit, cum non minus levitatem exhibeat aër in aëre, quam gravitatem aqua in aqua: in bulla autem, exili obducta pellicula, ad tempus stat.

16. Inquiratur, quis sit terminus levitatis? Neque enim quemadmodum centrum terræ posuerunt centrum gravitatis, volunt (credo) ut ultima convexitas cœli sit terminus levitatis. An potius, veluti gravia videatur eousque ferri, ut decumbant, et tanquam ad immobile; ita levia eousque ferantur, ut rotari incipiant, et tanquam ad motum siae termino?

17. Inquiratur quid in causa sit, cur vapores et halitus eousque in altum, ac sita est regio (quam vocant) media aëris, ferantur; cum et crassiusculæ sint materiæ, et radii solis per vices (noctu scilicet) cesseut?

18. Inquiratur de regimine motus flammæ in sursum; quod eo abstrusius est, quia singulis momentis flamma perit, nisi furte in medio flammarum majorum; etenim flammæ abruptæ a continuitate sua parum durant.

19. Inquiratur de motu in sursum ipsius activitatis calidi; veluti cum calor in ferro eandente citius gliscit in sursum, quam in deorsum.

Exemplum igitur topicæ particularis tale sit: illud interim, quod monere occepimus, iterum monemus, nempe ut homines debeaat topicas particulares suas alternare, ita ut, post majores progressus aliquos in inquisitione factos, aliam et subinde aliam instituant topicam, si modo scientiarum fastigia conscendere cupiant. Nos autem topicis particularibus tantum tribuimus, ut proprium opus de ipsis, in subjectis naturalibus dignioribus et obscurioribus, conficere in animo habeamus. Domini enim quæstionum sumus, rerum non item. Atque de inventiva hactenus.

CAPUT QUARTUM.

Partitio artis judicandi in judicium per inductionem, et per syllogismum. Quorum prius aggregatur organo novo. Partitio prima judicii per syllogismum in reductionem rectam et inversam. Partitia secunda ejus in analyticam, et doctrinam de elenchis. Partitio doctrinæ de elenchis in elenchos sophismatum, elenchos hermeniæ, et elenchos imaginum, sive idolorum. Partitio idolorum in idola tribus, idola specus, et idola fori. Appendix artis judicandi, videlicet de analogia demonstrationum pro natura subjecti.

Transeamus nunc ad judicium, sive artem judicandi, in qua agitur de natura probationum sive demonstrationum. In arte autem ista judicandi (ut etiam vulgo receptum est) aut per inductionem, aut per syllogismum concluditur: nam enthymemata et exempla, illorum duorum compendia tantum sunt. At quatenus ad judicium, quod fit per inductionem, nihil est, quod nos detinere debeat: uno siquidem eodemque mentis opere illud, quod quæritur, et invenitur et judicatur. Neque enim per medium aliquod res transigitur, sed immediate, eodem fere modo, quo fit in sensu. Quippe sensus, in objectis suis primariis, simul et objecti speciem arripit, et ejus veritati consentit. Aliter autem fit in syllogismo; cujus probatio immediata non est, sed per medium perficitur. Itaque alia res est inventio medii, alia judicium de consequentia argumenti. Nam primo discurrit mens, postea acquiescit. At inductionis formam vitiosam prorsus valere jubemus; legitimam ad novum organum remittimus. Itaque de judicio per inductionem hoc loco satis.

De illo altero per syllogismum quid attinet dicere, cum subtilissimis ingeniorum limis hæc res fere attrita sit, et in multas minutias redacta? Nec mirum, cum sit res, quæ cum intellectu humano magnam habeat sympathiam. Nam animus humanus miris modis ad hoc contendit et anhelat, ut non pensilis sit, sed nanciscatur aliquid fixum et immobile, cui tanquam firmamento, in transcursibus et disquisitionibus suis, innitatur. Sane quemadmodum Aristoteles probare conatur inveniri in omni motu corporum aliquid, quod quiescit; et fabulam antiquam de Atlante, qui ipse erectus cœlum humeris sustinuit,

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perelegnnter ad polos mundi traducit, circa quos conversiones expediuntur: similiter magno studio appetunt homines aliquem habere intra se cogitationum Atlantem, aut poles, qui intellectus fluctuationes et vertigines aliquatenns regant; timentes scilicet, ne cœlum ipsorum ruat. Itaque ad principia scientiarum constituenda præpropere festinarunt, circa qnæ omnis disputationum varietas verteretur, sine periculo ruinæ et casus; nescientes profecto eum, qui certa nimis propere captaverit, in dubiis finiturum: qui autem judicium tempestive cohibuerit, ad certa perventurum.

Manifestum est igitur, artem hanc judicandi per syllogismum nihil aliud esse, quam reductionem propositionum ad principia per medios terminos. Principia autem consensu recepta intelliguntur, atque a qnæstione eximuntur. At terminorum mediorum inventio libero ingeniorum acumini et investigationi permittitur. Est autem reductio illa duplex, directa scilicet, et inversa. Directa est, cum ipsa propositio ad ipsum principium reducitur: id qnod probatio ostensiva vocatur. Inversa est, cum contradictoria propositionis reducitnr ad contradictorium principii; quod vocant probationem per incommodum. Numerus vero terminorum mediorum, sive scala eorum, minuitur ant augetur, pro remotione propositionis a principio.

His positis, partiemur artem judicii (sicut vulgo fere solet) in analyticam, et doctrinam de elenchis: altera indicat, altera cavet: analytica enim veras formas instituit de consequentiis argumentorum; a quibus si varietnr, sive deflectatnr, vitiosa deprehenditur esse conclusio: atque hoc ipsum in se elenchum quendam sive redargutionem continet. Rectum enim (ut dicitur) et sui index est, et obliqui. Tutissimum nihilominus est elenchos veluti monitores adhibere, quo facilius detegantur fallaciæ, judicium alioquin illaqueaturæ. In analytica vero nihil desiderari reperimus, quin potius oneratur superfluis, quam indiget accessionibus.

Doctrinam de elenchis in tres partes dividere placet; elenchos sophismatum, elenchos hermeniæ, et elenchos imaginum sive idolorum. Doctrina de elenchos sophismatum spprime utilis eat; qnamvis enim pinguius fallaciarum genus, a Seneca, non inscite comparetur cum præstigiatorum technis; in quibus quo pacto res geratur nescimus; aliter autem se habere rem, quam videtur, satis novimus: subtiliora tamen sophismata non solum id præstant, ut non habeat quis quod respondeat; sed et judicium ipsum serio confundunt.

Hæc pars de elenchis sophismatum præclare tractata est ab Aristotele qnoad præcepta: etiam a Platone adhuc melius, qnoad exempla; neqne illud tantum in persona sophistarum antiquorum (Gorgiæ, Hippiæ, Protagoræ, Enthydemi, et reliqnorum) verum etiam in persona ipsius Socratis, qui cum illud semper agat, ut nihil affirmet, sed a cæteris in medium adducta infirmet, ingeniosissime objectionnm, fallaciarum, et redargutionum modos expressit. Itaque in hac parte nihil habemus, quod desideremus. Illud interim notandum; quamvis usum hujns doctrinæ probum et præcipuum in hoc posuerimus, ut redarguantur sophismata; liquido nihilominus patere, usum ejus degenerem et corruptum ad captiones et contractiones per illa ipsa sophismata struendas et concinnandas spectare. Quod genus facultatis etiam pro eximio habetur, et hand parvas affert utilitates. Licet eleganter introducta sit a quopiam illa differentia inter oratorem et sophistam; quod alter tanquam leporarius cursn præstet; alter tanquam lepus ipse flexu.

Sequuntnr elenchi hermeniæ: ita enim (vocabulum potius, quam sensum ab Aristotele mutuantes) eos appellabimus. Redigamus igitur hominibus in memoriam ea, quæ a nobis de transcendentibus, et de adventitiis entium conditionibus, sive adjnnctis (cum de philosophia prima ageremus) superius dicta sunt. Ea sunt, majus, minus; multum, psucum; prius, posterius; idem, diversum; potentia, actus; habitus, privatio; totum, partes; agens, patiens; motus, quies; ens, non eus; et similia. Imprimis autem meminerint et notent differentes eas, quas diximus, hsrum rerum contemplationes: videlicet quod possint inquiri vel physice, vel logice. Physicam autem circa eas tractationem philosophiæ primæ assignavimus. Superest logica: ea vero ipsa est res, qusm in præsenti doctrinam de elenchis hermeniæ nominamus. Portio certe est hæc doctrinæ sana et bona. Hoc enim habent notiones illæ generales et communes, ut in omnibus disputationibus ubique intercurrant; adeo ut, nisi accurate, et anxio cum jndicio, bene jam ab initio distinguantnr, universo disputationum lumini caliginem miris modis offusuræ sint; et eo rem fere deducturæ, ut desinant disputationes in pugnas verborum. Etenim æquivocationes, et malæ acceptiones verborum (præsertim hujus generis) sunt sophismata sophismatum. Quare etiam melius visum est istarum tractationem seorsum constituere, qusm eam, vel in philosophiam primam sive metaphysicam recipere; vel ex parte analyticæ subjicere, ut Aristoteles satis confuse fecit. Dedimus antem ei nomen ex nsu, quia verus ejus usus est plane redargutio, et cautio circa usnm verborum. Quinimo partem illam de prædicamentis, si recte instituatur, circa cautiones de non confundendis aut tranaponendis definitionum et divisionum terminis præcipuum usum sortiri existimamus, et huc etiam referri malumus. Atqne de elenchis hermeniæ hactenus.

Ad elenchos vero imaginum sive idolorum quod attinet, sunt quidem idola profundissimæ mentis humanæ fallaciæ. Neqne enim fallunt in particularibus, ut cæteræ, judicio caliginem offundendo, et tendiculas struendo; sed plane ex prædispositione mentis prava, et perperam constituta, quæ tanquam omnes intellectus anticipationes detorquet et inficit. Nam mens humana (corpore obdncta et obfuscata) tantum abest ut speculo plano, æquali, et claro similis sit (quod rerum radios sineere excipiat et reflectat) ut potius sit instar speculi alicujus incantati, pleni superstitionibus et spectris. Imponuntnr autem intellectui idola, aut per naturam ipsam generis humani generalem; ant per naturam cujusqui individnalem; ant per verba, sive naturam communicativam. Primum genus idola tribus; secundum idola specus; tertium idola fori, vocare consnevimus. Est et quartum genns, quod idola theatri appellamus, atque superinductum est a pravis theoriis, sive phi-

losophiis, et perversis legibus demonstrationum: verum hoc genus abnegari potest et deponi; itaque illud in præsentia omittemus. At reliqua plane obsident mentem, neque prorsus evelli possunt. Igitur non est, quod quia in istis analyticam aliquam expectet; sed doctrina de elenchis est circa ipsa idola doctrina primaria. Neque (si verum omnino dicendum sit) doctrina de idulis in artem redigi possit; sed tantum adhibendi est, ad ea cavenda, prudentia quædam contemplativa. Horum autem tractationem plenam et subtilem ad novum organum amandamus; pauca generaliter tantum de iis hoc loco dicturi.

Idolorum tribus exemplum tale sit. Natura intellectus humani magis afficitur affirmativis et activis, quam negativis et primitivis, cum rite et ordine æquum se utrique præbere debeat. At ille, si res quæpiam aliquando existat et teneat, fortiorem recipit de ea impressionem, quam si eadem longe pluries fallat, aut in contrarium eveniat. Id quod omnis superstitionis et vanæ credulitatis quasi radix est. Itaque recte respondit ille, qui, cum suspensa tabula in templo monstraretur eorum, qui vota solverant, quod naufragii periculum effugissent, atque interrogando premeretur, annon tum demum Neptuni numen agnosceret? quæsivit vicissim, At ubi sunt illi depicti, qui post vota nuncupata perierunt? Atque eadem est ratio superstitionum similium, sicut in astrologicis, insomniis, ominibus, et reliquis. Alterum exemplum est hujusmodi; Animus humanus (cum sit ipse substantia æqualis et uniformis) majorem præsupponit et affingit in natura rerum æqualitatem et uniformitatem, quam revera est. Hinc commentum mathematicorum, in cœlestibus omnia moveri per circulos perfectos, rejiciendo lineas spirales: hinc etiam fit, quod cum multa sint in natura monodica, et plena imparitatis, affingat tamen semper cogitatio humana, relativa, parallela, et conjugata; ab hoc enim fonte elementum ignis cum orbe suo introductum est ad constituendam quaternionem cum reliquis tribus, terra, aqua, aëre. Chemici autem fanaticam instruxerunt rerum universarum phalangem, inanissimo commento inveniri fingentes, in quatuor illis suis elementis (cœlo, aëre, aqua, et terra) species singulas parallelas invicem et conformes. Tertium exemplum est superiori finitimum: quod homo fiat quasi norma et speculum naturæ: neque enim credibile est (si singula percurrantur et notentur) quantum agmen idolorum philosophiæ immiserit naturalium operationum ad similitudinem actionum humanarum reductio: hoc ipsum, inquam, quod putetur talia naturam facere, qualia homo facit. Neque multo meliora sunt ista, quam hæresis anthropomorphitarum, in cellis ac solitudine stupidorum monachorum orta: aut sententia Epicuri huic ipsi in paganismo respondens, qui diis humanam figuram tribuebat. At non opus fuit Velleio Epicureo interrogare, Cur Deus cœlum stellis et luminibus, tanquam ædilis, ornasset? Nam si summus ille opifex ad modum ædilis se gessisset, in pulchrum aliquem et elegantem ordinem stellas digerere debuisset, operosis palatiorum laquearibus consimilem; eum e contra ægre quis ostendat, in tam infinito stellarum numero figuram aliquam vel quadratam, vel triangularem, vel rectilinearem. Tanta est harmoniæ discrepantia inter spiritum hominis et spiritum mundi.

Quod ad idola specus attinet, illa ortum habent ex propria cujusque natura et animi et corporis; atque etiam ex educatione et consuetudine, et fortuitis rebus, quæ singulis hominibus accidunt. Pulcherrimum enim emblema est illud de specu Platonis: siquidem si quis (missa illa exquisita parabolæ subtilitate) a prima infantia, in antro aut caverna obscura et subterranea, ad maturam usque ætatem degeret, et tunc derepente in aperta prodiret, et hunc cœli et rerum apparatum contueretur; dubium non est, quin animum ejus subirent et perstringerent quamplurimæ miræ et absurdissimæ phantasiæ. Nos vero scilicet sub aspectu cœli degimus; interea tamen animi in cavernis corporum nostrorum conduntur; ut infinitas errorum et falsitatum imagines haurire necesse sit, si e specu sua raro tantum et ad breve aliquod tempus prodeant, et non in contemplatione naturæ perpetuo, tanquam sub dio, morentur. Emblemati siquidem illi de specu Platonis optime convenit parabola illa Heracliti; quod homines scientias in mundis propriis, et non in mundo majore, quærant.

At idola fori molestissima sunt, quæ ex fœdere tacito inter homines, de verbis et nominibus impositis, se in intellectum insinuarunt. Verba autem plerunque ex captu vulgi induntur; atque per differentias, quarum vulgus capax est, res secant; cum autem intellectus acutior, aut observatio diligentior res melius distinguere velit, verba obstrepunt. Quod vero hujus remedium est (definitiones scilicet) in plurimis huic malo mederi nequit, quoniam et ipsæ definitiones ex verbis constent, et verba gignant verba. Etsi autem putemus verbis nostris nos imperare; et illud facile dictu sit, Loquendum esse ut vulgus, sentiendum ut sapientes; quinetiam vocabula artium (quæ apud peritos solum valent) huic rei satisfacere videri possint; et definitiones (de quibus diximus) artibus præmissæ (secundum prudentiam mathematicorum) vocabulorum pravas acceptiones corrigere valeant; attamen hæc omnia non sufficiunt, quo minus verborum præstigiæ et incantationes plurimis modis seducant, et vim quandam intellectui faciant, et impetum suum (more Tartarorum sagittationis) retro in intellectum (unde profecta sunt) retorqueant. Quare altiore, et novo quodam remedio, ad hoc malum opus est. Verum hæc jam cursim perstrinximus, interim desiderari pronunciantes hanc doctrinam, quam elenchos magnos, sive de idolis animi humani nativis et adventitiis, appellabimus. Ejus autem tractationem legitimam ad Organum Novum referimus.

Superest artis judicandi appendix quædam insignis, quam etiam desiderari statuimus. Siquidem Aristoteles rem notavit, modum rei nullibi persecutus est. Ea tractat, quales demonstrationes ad quales materias, sive subjecta, applicari debeant; ut hæc doctrina tanquam judicationes judicationum contineat. Optime enim Aristoteles, Neque demonstrationes ab oratoribus, neque suasiones a mathematicis requiri debere monet. Ut si in probationis genere aberretur, judicatio ipsa non absolvatur. Quando vero sint quatuor demonstrationum genera,

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vel per consensum immediatum et notiones communes, vel per inductionem, vel per syllogismum, vel per eam (quam recte vocat Aristotelcs) demonstrationem in orbem (non a notioribus scilicet, sed tanquam de plano); habent hæ demonstrationes singulæ certe subjecta, et materias scientiarum, in quibus pollent; alia, a quibus excluduntur. Etenim rigor et curiositas in poscendo probationes nimium severas in aliquibus; multo magis facilitas et remissio in acquiescendo probationibus levioribus in aliis; inter ea sunt numeranda, quæ detrimenti plurimum et impedimenti scientiis attulerunt. Atque de arte judicandi hæc dicta sint.

CAPUT QUINTUM.

Partitio artis retinendi sive retentivæ in doctrinam de adminiculis memoriæ, et doctrinam de memoria ipsa. Partitio doctrinæ de memoria ipsa, in prænotionem et emblema.

ARTEM retinendi sive custodiendi in duas doctrinas partiemur: doctrinam scilicet de adminiculis memoriæ, et doctrinam de memoria ipsa. Adminiculum memoriæ plane scriptio est: atque omnino monendum quod memoria, sine hoc adminiculo, rebus prolixioribus et accurationibus impar sit; neque ullo modo, nisi de scripto, recipi debeat. Quod etiam in philosophia inductiva, et interpretatione naturæ, præcipue obtinet: tam enim possit quis calculationes ephemeridis, memoria nuda, absque scripto, absolvere, quam interpretationi naturæ, per meditationes et vires memoriæ nativas et nudas, sufficere; nisi eidem memoriæ per tabulas ordinatas ministretur. Verum missa interpretatione naturæ, quæ doctrina nova est, etiam ad veteres et populares scientias haud quicquam fere utilius esse possit, quam memoriæ adminiculum solidum et bonum; hoc est, digestum probum et eruditum locorum communium. Neque tamen me fugit, quod relatio eorum, quæ legimus aut discimus, in locos communes damno eruditionis ab aliquibus imputetur, ut quæ lectionis cursum remoretur, et memoriam ad feriandum invitet. Attamen quoniam adulterina res est in scientiis præcocem esse et promptum, nisi etiam solidus sis et multipliciter instructus; diligentiam et laborem in locis communibus congerendis magni prorsus rem esse usus et firmitudinis in studiis judicamus; veluti quæ inventioni copiam subministret, et aciem judicii in unum contrahat. Verum est tamen inter methodos et syntaxes locorum communium, quas nobis adhuc videre contigit, nullam reperiri, quæ alicujus sit pretii: quandoquidem in titulis suis faciem prorsus exhibeant magis scholæ, quam mundi, vulgares et pædagogicas adhibentes divisiones, non autem eas, quæ ad rerum medullas et interiora quovis modo penetrent.

Circa memoriam autem ipsam satis segniter et languide videtur adhuc inquisitum. Extat certe de ea ars quæpiam; verum nobis constat tum meliora præcepta de memoria confirmanda et amplianda haberi posse, quam illa ars complectitur; tum practicam illius ipsius artis meliorem institui posse, quam quæ recepta est. Neque tamen ambigimus (si cui placet hac arte ad ostentationem abuti) quin possint præstari per eam nonnulla mirabilia et portentosa: sed nihilominus res quasi sterilis est (eo quo adhibetur modo) ad usus humanos. At illud interim ei non imputamus, quod naturalem memoriam destruat et superoneret (ut vulgo objicitur) sed quod non dextere instituta sit ad auxilia memoriæ commodanda in negotiis et rebus seriis. Nos vero hoc habemus (fortasse ex genere vitæ nostro politicæ) ut, quæ artem jactant, usum non præbent, parvi faciamus. Nam ingentem numerum nominum aut verborum semel recitatorum eodem ordine statim repetere, aut versus complures de quovis argumento extempore conficere, aut quicquid occurrit satirica aliqua similitudine perstringere, aut scria quæque in jocum vertere, aut contradictione, et cavillatione quidvis eludere, et similia (quorum in facultatibus animi haud exigua est copia; quæque ingenio et exercitatione ad miraculum usque extolli possunt) hæc certe omnia, et his similia, nos non majoris facimus, quam funambulorum et mimorum agilitates et ludicra: etenim eadem ferme res sunt; cum hæc corporis, illa animi viribus abutantur; et admirationis forsitan aliquid habeant, dignitatis parum.

Ars autem memoriæ duplici nititur intentione, prænotione et emblemate. Prænotionem vocamus abscissionem quandam investigationis infinitæ. Cum enim quis aliquid revocare in memoriam conatur, si nullam prænotionem habeat, aut perceptionem ejus, quod quærit; quærit certe et molitur, et hac illac discurrit, tanquam in infinito. Quod si certam aliquam prænotionem habeat, statim absciditur infinitum, et fit discursus memoriæ magis in vicino; ut venatio damæ intra septa. Itaque et ordo manifesto juvat memoriam. Subest enim prænotio, id quod quæritur, tale esse debere, ut conveniat cum ordine. Similiter carmina facilius discuntur memoriter, quam prosa. Si enim hæretur in aliquo verbo, subest prænotio, tale debere esse verbum, quod conveniat cum versu. Atque ista prænotio est artificialis memoriæ pars prima: nam in artificiali memoria locos habemus jam ante digestos et paratos; imagines extempore, prout res postulat, conficimus: at subest prænotio talem esse debere imaginem, qualis aliquatenus conveniat cum loco. Id, quod vellicat memoriam, et aliquo modo munit ad rem, quam quærimus. Emblema vero deducit intellectuale ad sensibile: sensibile autem semper fortius percutit memoriam, atque in ea facilius imprimitur, quam intellectuale. Adeo ut etiam brutorum memoria per sensibile excitetur, per intellectuale minime. Itaque facilius retineas imaginem venatoris leporem persequentis, aut pharmacopœi pyxides ordinantis, aut pedantii orationem habentis, aut pueri versus memoriter recitantis, aut mimi in scena agentis; quam ipsas notiones inventionis, dispositionis, elocutionis, memoriæ, actionis. Sunt et alia, quæ pertinent ad memoriam juvandam (ut modo diximus) sed ars, quæ jam habetur, ex his duobus jam præmissis consistit. Particulares autem artium defectus persequi, fucrit ab instituto nostro recedere. Igitur de arte retinendi sive custodiæ hæc dicta sint. Jam vero ad quartum membrum logicæ, quod traditionem et elocutionem tractat, ordine pervenimus.

FRANCISCI

BARONIS DE VERULAMIO, VICE-COMITIS SANCTI ALBANI,

DE

DIGNITATE ET AUGMENTIS SCIENTIARUM.

LIBER SEXTUS

AD REGEM SUUM.

CAPUT PRIMUM.

Partitia traditivæ in doctrinam de organa sermonis; doctrinam de methoda sermonis; et doctrinam de illustratione sermonis. Partitia doctrinæ de organa sermonis in doctrinam de notis rerum; de locutione, et de scriptione: quarum duæ posteriores grammaticam constituunt, ejusque partitiones sunt. Partitia doctrinæ de notis rerum in hieroglyphica et characteres reales. Partitia secunda grammaticæ in literariam et philosophantem. Aggregatia poeseos quoad metrum ad doctrinam de locutione. Aggregatia doctrinæ de ciphris ad doctrinam de scriptione.

Concreditur certe cuivis (rex optime) seipsum et sua ridere et ludere. Quis igitur novit, num farte opus istud nostrum non descriptum fuerit ex libro quodam veteri, reperto inter libros famosissimæ illius bibliotheeæ Sancti Victoris; quorum catalogum exeepit magister Franciscus Rabelesius? Illic enim invenitur liber, cui titulus est, "Formicarium artium." Nos sane pusillum aeervum pulviseuli congessimus, et sub eo eomplura scientiarum et artium grana condidimus, quo formicæ reptare possint, et paulatim eonquieseere, et subinde ad novos se labores accingere. At regum sapientissimus pigros quoscunque remittit ad formicas: nos autem pigros eos homines pronunciamus, quibus aequisitis uti tantum eordi sit; neque subinde novas scientiarum sementes et messes fneere.

Accedamus nunc ad artem tradendi, sive proferendi et enunciandi ea, quæ inventa, judicata, ac in memoria reposita sunt; quam nomine generali traditivam appellabimus. Ea omnes artes eirca verba et sermones compleetitur. Quamvis enim ratio sermonis veluti anima sit, tamen in traetando disjungi debent ratio et sermo; non minus quam anima et eorpus. Traditivam in tres partes dividemus, doctrinam eirca organum sermonis, doctrinam eirca methodum sermonis, et doctrinam eirca sermonis illustrationem sive ornatum.

Doctrina de organo sermonis vulgo reeepta, quæ et grammatiea dieitur, duplex est: altera de locutione, altera de scriptione. Reete enim Aristoteles, "Cogitationum tesseræ verba, verborum literæ." Utrumque grammaticæ assignabimus. Verum ut rem altius repetamus, antequam ad grammatiesm et partes ejus jam dictas veniamus, in genere de organo traditivæ dicendum est. Videntur enim esse proles quædam traditivæ aliæ, præter verba et literas. Hoc igitur plane statuendum est: quicquid scindi possit in differentias satis numerosas, ad notionum varietatem explicandam (modo differentiæ illæ sensui perceptibiles sint) fieri posse vehiculum cogitationum de homine in hominem. Nam videmus nationes linguis diserepantes commercia non male per gestus exercere; at in praetica nonnullorum, qui surdi et muti usque a nativitate fuerant, et alias erant ingeniosi, miros videmus haberi inter eos et amicos suos, qui eorum gestus perdidicerant, dialogos. Quinetiam notissimum fieri jam cœpit, quod in China, et provinciis ultimi orientis, in usu hodie sint eharaeteres quidem reales, non nominales, qui scilicet nec literas, nec verba, sed res et notiones exprimunt. Adeo ut gentes eomplures, linguis prorsus diserepantes, sed hujusmodi eharacteribus (qui apud illas latius receepti sunt) consentientes, scriptis communicent: eousque, ut librum aliquem hujusmodi eharaeteribus conscriptum, quæque gens patria lingua legere et reddere possit.

Notæ igitur rerum, quæ absque ope aut media verborum res significant, duplicis generis sunt: quarum prius genus ex congruo; alterum ad placitum significat. Prioris generis sunt hieroglyphica et gestus: posterioris vero ii, quos diximus, eharaeteres reales. Hieroglyphicorum usus vetustus admodum, et in veneratione quadam habitus; præcipue apud Ægyptios gentem valde antiquam: adeo ut videantur hieroglyphica fuisse scriptio quædam antenata, et senior ipsis elementis literarum, nisi forte apud Hebræos. Gestus autem tanquam hieroglyphica transitoria sunt. Quemadmodum enim verba prolata volant, scripta manent; ita et hieroglyphica gestibus expressa transeunt, depicta durant. Cum enim Periander, consultus de conservanda tyrannide, legatum astare juberet; atque ipse in horto deambulans

summitates florum eminentiorum carperet, ad cædem procerum innuens; non minus usus est hieroglyphico, quam si id in charta depinxisset. Illud interim patet, hieroglyphica et gestus semper cum re significata aliquid similitudinis habere; et emblemata quædam esse; unde eas notas rerum ex congruo nominavimus. At characteres reales nihil habent ex emblemate, sed plane surdi sunt; non minus quam ipsa elementa literarum; et ad placitum tantum efficti, consuetudine autem tanquam pacto tacito recepti. Illud interim liquet, vasta ipsorum multitudine ad scribendum opus esse: tot enim esse debent, quot sunt vocabula radicalia. Hæc igitur portio doctrinæ de organo sermonis, quæ est de notis rerum, nobis ponitur pro desiderato. Etsi autem tenuis possit videri esse ejus usus, cum verba et scriptio per literas sint organa traditivæ longe commodissima; visum est tamen nobis, veluti rei non ignobilis, aliquam hoc loco mentionem ejus facere. Tractamus enim hic, veluti numismata rerum intellectualium: nec abs re fuerit nosse, quod sicut nummi possint confici ex alia materia, præter aurum et argentum, ita et notæ rerum aliæ possint cudi, præter verba et literas.

Pergamus igitur ad grammaticam. Ea vero veluti viatoris locum erga cæteras scientias obtinet; non nobilem illum quidem, sed imprimis tamen necessarium; præsertim cum scientiæ, nostris seculis, et linguis eruditis, non vernaculis, potissimum hauriantur. Neque tamen dignitas ejus parva censenda est, quandoquidem antidoti cujusdam vicibus fungatur contra maledictionem illam confusionis linguarum. Sane hoc agit industria humana, ut se restituat et redintegret in benedictionibus illis, quibus culpa sua excidit. Atque contra maledictionem primam generalem de sterilitate terræ, et comedendo panem suum in sudore vultus sui, reliquis artibus omnibus se munit et instruit. At contra secundam illam de confusione linguarum advocat in auxilium grammaticam. Ejus in linguis quibusque vernaculis exiguus certe usus est; in externis perdiscendis latior; amplissimus vero in illis linguis, quæ vulgares esse desierunt, et in libris tantum perpetuantur.

Grammaticam etiam bipartitam ponemus, ut alia sit literaria, alia philosophica: altera adhibetur simpliciter ad linguas, nempe ut eas quis aut celerius perdiscat, aut emendatius et purius loquatur: altera vero aliquatenus philosophiæ ministrat; qua in parte occurrit nobis, Cæsarem libros "De analogia" conscripsisse; atque dubitatio subiit, utrum illi hanc, quam dicimus, grammaticam philosophicam tractarint? Suspicamur tamen nil admodum in illis fuisse subtilius aut sublimius, sed tantum præceptiones tradidisse de oratione casta et integra, neque a consuetudine loquendi prava, neque ab affectatione aliquorum vitiata et polluta; in quo genere ipse excelluit. Veruntamen hac ipsa re moniti, cogitatione complexi sumus grammaticam quandam, quæ non analogiam verborum ad invicem, sed analogiam inter verba et res, sive rationem, sedulo inquirat: citra tamen eam, quæ logicæ subservit, hermeniam. Vestigia certe rationis verba sunt; itaque vestigia etiam aliquid de corpore indicant; hujus igitur rei adumbrationem quandam tenuem dabimus. Primo autem minime probamus curiosam illam inquisitionem, quam tamen Plato vir eximius non contempsit; nimirum de impositione et originali etymologia nominum; supponendo ac si illa jam a principio ad placitum indita minime fuissent, sed ratione quadam et significanter derivata et deducta: materiam certe elegantem, et quasi cereum, quæ apte fingi et flecti possit; quoniam vero antiquitatum penetralia perscrutari videtur, etiam quodammodo venerabilem; sed nihilominus parce veram, et fructu cassam. Illa demum, ut arbitramur, foret nobilissima grammaticæ species, si quis in linguis plurimis tam eruditis quam vulgaribus eximie doctus, de variis linguarum proprietatibus tractaret; in quibus quæque excellat, in quibus deficiat, ostendens. Ita enim et linguæ mutuo commercio locupletari possint; et fiet ex iis, quæ in singulis linguis pulchra sunt (tanquam Venus Apellis) orationis ipsius quædam formosissima imago, et exemplar quoddam insigne, ad sensus animi rite exprimendos. Atque una etiam hoc pacto capientur signa haud levia, sed observatu digna (quod fortasse quispiam non putaret) de ingeniis et moribus populorum et nationum ex linguis ipsorum. Equidem libenter audio Ciceronem notantem, quod apud Græcos desit verbum, quod Latinum illud *(ineptum)* reddat; "Propterea," inquit, "quod Græcis hoc vitium tam familiare fuit, ut illud in se ne agnoscerent quidem:" digna certe gravitate Romana censura. Quid illud, quod Græci in compositionibus verborum tanta licentia usi sunt, Romani contra magnam in hac re severitatem adhibuerunt? Plane colligat quis, Græcos fuisse artibus, Romanos rebus gerendis, magis idoneos. Artium enim distinctiones verborum compositionem fere exigunt: at res, et negotia, simpliciora verba postulant. Quin Hebræi tantum compositiones illas refugiunt, ut malint metaphora abuti, quam compositionem introducere. Quinetiam verbis tam paucis et minime commixtis utuntur, ut plane ex lingua ipsa quis perspiciat, gentem fuisse illam Nazaræam, et a reliquis gentibus separatam. Annon et illud observatione dignum (licet nobis modernis spiritus nonnihil retundat) antiquas linguas plenas declinationum, casuum, conjugationum, temporum, et similium fuisse; modernas his fere destitutas, plurima per præpositiones et verba auxiliaria segniter expedire. Sane facile quis conjiciat (utcunque nobis ipsi placeamus) ingenia priorum seculorum nostris fuisse multo acutiora et subtiliora. Innumera sunt ejusmodi, quæ justum volumen complere possint. Non abs re igitur fuerit grammaticam philosophantem a simplici et literaria distinguere, et desideratam ponere.

Ad grammaticam etiam pertinere judicamus omnia illa, quæ verbis quoquo modo accidunt, qualia sunt sonus, mensura, accentus. At prima illa literarum simplicium cunabula (nempe qua percussione linguæ, qua apertura oris, qua adductione labiorum, quo nisu gutturis, singularum literarum sonus generetur) ad grammaticam non pertinent, sed portio sunt doctrinæ de sonis, sub sensu et sensibili tractanda. Sonus, de quo loquimur, grammaticus, ad euphoniam tantum pertinet et dysphonias. Illarum quædam communes sunt: nulla enim est lingua, quin vocalium concurrentium hiatus, aut consonantium concurren-

tium asperitates aliquatenus refugiat. Sunt et aliæ respectivæ, quæ scilicet diversorum populorum auribus gratæ aut ingratæ accedunt. Græca lingua diphthongis scatet; Latina longe parcius: lingua Hispanica literas tenues odit, easque statim vertit in medias: linguæ quæ ex Gothis fluxere, aspiratis gaudent: multa sunt ejusmodi: verum hæc ipsa fortasse plus satis.

At mensura verborum ingens nobis corpus artis peperit; poësim scilicet, non quatenus ad materiam (de qua supra) sed quatenus ad stylum et figuram verborum, versas nimirum sive carmina: circa quæ ars habetur quasi pusilla; exempla accedunt grandia, et infinita. Neque tamen ars illa (quam prosodiam grammatici appellant) ad carminum genera et mensuras edocendas tantum restringi debeat: adjicienda enim sunt præcepta, quod carminum genus cuique materiæ sive subjecto optime conveniat. Antiqui heroica carmina historiis et encomiis applicaverunt; elegos querimoniis, iambos invectivis, lyricos odis et hymnis. Neque hæc prudentia recentioribus poëtis in linguis propriis defuit: illud reprehendendum, quod quidam antiquitatis nimium studiosi, linguas modernas ad mensuras antiquas (heroicas, elegiacas, sapphicas, etc.) traducere conati sunt, quas ipsarum linguarum fabrica respuit, nec minus aures exhorrent. In hujusmodi rebus sensus judicium artis præceptis præponendum, ut ait ille:

—"Cœnæ fercula nostræ
Mallem convivis quam placuisse cocis."

Neque vero ars est, sed artis abusus, cum illa naturam non perficiat, sed pervertat. Verum quod ad poësim attinet (sive de fabulis, sive de metro loquamur) est illa (ut superius diximus) tanquam herba luxurians, sine semine nata, ex vigore ipsius terræ germinans. Quare ubique serpit et latissime diffusa est, ut supervacuum foret de defectibus ejus solicitum esse. De illa igitur cura est abjicienda. Quod vero ad accentus verborum, nil opus est de re tam pusilla dicere; nisi forte illud quis notatu dignum putet; quod accentus verborum exquisite, accentus autem sententiarum neutiquam in observationem venit. Attamen illud fere universo generi humano commune est, ut vocem in fine periodi submittant, in interrogatione elevent, et alia hujusmodi non pauca. Atque de grammaticæ parte, quæ ad locutionem spectat, hactenus.

Quod ad scriptionem attinet, ea aut alphabeto vulgari perficitur (quod ubique recipitur) aut occulto et privato, de quo inter singulos convenit, quod ciphras vocant. At orthographia vulgaris etiam controversiam et quæstionem nobis peperit: utrum scilicet eadem verba scribere oporteat, quo pronunciantur, modo, an potius ex more consueto? At illa scriptio, quæ reformata videri possit (ut scilicet scriptio pronunciationi consona sit) est ex genere inutilium subtilitatum. Nam et ipsa pronunciatio quotidie gliscit, nec constans est; et derivationes verborum, præsertim ex linguis extraneis, prorsus obscurantur: denique cum ex more recepto scripta, morem pronunciandi nullo modo impediant, sed liberum relinquant, quorsum attinet ista novatio?

Ad ciphras igitur veniendum. Earum genera haud pauca sunt: ciphræ simplices; ciphræ non significantibus characteribus intermixtæ; ciphræ duplices literas uno charactere complexæ; ciphræ rotæ; ciphræ clavis; ciphræ verborum; aliæ. Virtutes autem in ciphris requirendæ tres sunt: ut sint expeditæ, non nimis operosæ ad scribendum: ut sint fidæ, et nullo modo pateant ad deciphrandum: addo denique, ut, si fieri possit, suspicionc vacent. Si enim epistolæ in manus eorum devenient, qui in eos, qui scribunt, aut ad quos scribuntur, potestatem habeant, tametsi ciphra ipsa fida fit et deciphratu impossibilis, tamen subjicitur hæc res examini et quæstioni; nisi ciphra sit ejusmodi, quæ aut suspicione vacet, aut examinationem eludat. Quod vero ad elusionem examinis attinet, suppetit inventum ad hoc novum atque utile, quod cum in promptu habeamus, quorsum attinet illud inter desiderata referre, sed potius id ipsum proponere? Hoc hujusmodi est; ut habeat quis duo alphabeta, unum literarum verarum, alterum non-significantium: et simul duas epistolas involvat, unam, quæ secretum deferat; alteram, qualem verisimile fuerit scribentem missurum fuisse, absque periculo tamen. Quod si quis de ciphra severe interrogetur, porrigat ille alphabetum non-significantium pro veris literis; alphabetum autem verarum literarum pro non-significantibus; hoc modo incidet examinator in epistolam illam exteriorem, quam cum probabilem inveniet, de interiori epistola nihil suspicabitur. Ut vero suspicio omnis absit, aliud inventum subjiciemus, quod certe, cum adolescentuli essemus Parisiis, excogitavimus; nec etiam adhuc visa nobis res digna est, quæ pereat. Habet enim gradum ciphræ altissimum; nimirum ut omnia per omnia significari possint: ita tamen ut scriptio, quæ involvitur, quintuplo minor sit, quam ea, cui involvatur: alia nulla omnino requiritur conditio aut restrictio. Id hoc modo fiet. Primo, universæ literæ alphabeti in duas tantummodo literas solvantur per transpositionem earum. Nam transpositio duarum literarum per locos quinque differentiis triginta duabus, multo magis viginti quatuor (qui est numerus alphabeti apud nos) sufficiet. Hujus alphabeti exemplum tale est.

Exemplum Alphabeti Biliterarii.

A.	*B.*	*C.*	*D.*	*E.*	*F.*
aaaaa.	*aaaab.*	*aaaba.*	*aaabb.*	*aabaa.*	*aabab.*
G.	*H.*	*I.*	*K.*	*L.*	*M.*
aabba.	*aabbb.*	*abaaa.*	*abaab.*	*ababa.*	*ababb.*
N.	*O.*	*P.*	*Q.*	*R.*	*S.*
abbaa.	*abbab.*	*abbba.*	*abbbb.*	*baaaa.*	*baaab.*
T.	*U.*	*W.*	*X.*	*Y.*	*Z.*
baaba.	*baabb.*	*babaa.*	*babab.*	*babba.*	*babbb.*

Neque levc quiddam obiter hoc modo perfectum est. Etenim ex hoc ipso patet modus, quo ad omnem loci distantiam per objecta, quæ vel visui vel auditui subjici possint, sensa animi proferre et significare liceat: si modo objecta illa duplicis tantum differentiæ capacia sunt; veluti per campanas, per buccinas, per flammeos, per sonitus tormentorum, et alia quæcunque. Verum ut inceptum persequamur, cum ad scribendum accingeris, epistolam interiorem in alphabetum hoc biliterarium solves. Sit epistola interior:

" Fuge."

Exemplum Solutionis.

F	*U*	*G*	*E.*
aabab.	*baabb.*	*aabba.*	*aabaa.*

Præsto simul sit aliud alphabetum biforme, nimirum, quod singulas alphabeti communis literas, tam capitales quam minores, duplici forma, prout cuique commodum sit, exhibeat.

Exemplum Alphabeti Biformis.

a. b. a. b. a. b. a. b. a. b. a. b. a. b. a. b. a. b.
A. *A.* a. *a.* B. *B.* b. *b.* C. *C.* c. *c.* D. *D.* d. *d.* E. *E.*
a. b. a. b. a. b. a. b. a. b. a. b. a. b. a. b. a. b.
e. *e.* F. *F.* f. *f.* G. *G.* g. *g.* H. *H.* h. *h.* I. *I.* i. *i.*
a. b. a. b. a. b. a. b. a. b. a. b. a. b. a. b. a. b.
K. *K.* k. *k.* L. *L.* l. *l.* M. *M.* m. *m.* N. *N.* n. *n.* O. *O.*
a. b. a. b. a. b. a. b. a. b. a. b. a. b. a. b. a. b.
o. *o.* P. *P.* p. *p.* Q. *Q.* q. *q.* R. *R.* r. *r.* S. *S.* s. *s.*
a. b. a. b. a. b. a. b. a. b. a. b. a. b. a. b. a.
T. *T.* t. *t.* U. *U.* u. *u.* W. *W.* w. *w.* X. *X.* x. *x.* Y.
b. a. b. a. b. a. b.
Y. y. *y.* Z. *Z.* z. *z.*

Tum demum epistolæ interiori, jam factæ biliteratæ, epistolam exteriorem biformem literatim accommodabis, et postea describes. Sit epistola exterior:

" Manere te volo donec venero."

Exemplum Accommodationis.

F	*U*	*G*	*E.*
aabab.b	*aa*	*bb.aa*	*bba.aa*	*baa.*
Manere	te	volo	donec	venero.

Apposuimus etiam exemplum aliud largius ejusdem ciphræ, scribendi omnia per omnia.

Epistola Interior.

Ad quam delegimus epistolam Spartanam, missam olim in scytale.

" Perditæ res: Mindarus cecidit: milites esuriunt: neque hinc nos extricare, neque hic diutius manere possumus."

Epistola Exterior.

Sumpta ex epistola prima Ciceronis, in qua epistola Spartana involvitur.

" Ego omni officio, ac potius pietate erga te, cæteris satisfacio omnibus: mihi ipse nunquam satisfacio. Tanta est enim magnitudo tuorum erga me meritorum, ut quoniam tu, nisi perfecta re, de me non conquiesti: ego, quia non idem in tua causa efficio, vitam mihi esse acerbam putem. In causa hæc sunt: Ammonius regis legatus aperte pecunia nos oppugnat. Res agitur per eosdem creditores, per quos, cum tu aderas, agebatur. Regis causa, si qui sunt, qui velint, qui pauci sunt, omnes ad Pompeium rem deferri volunt. Senatus religionis calumniam, non religione, sed malevolentia, et illius regiæ largitionis invidia, comprobat, etc."

Doctrina autem de ciphris aliam secum traxit doctrinam erga ipsam relativam: illa est de deciphratione sive reseratione ciphrarum; licet quis alphabetum ciphræ aut pactum de latebra penitus ignoret. Res sane est illa laboriosa simul et ingeniosa, et arcanis principum, veluti et illa prior, dicata. Attamen præcautione solerti fieri possit inutilis; etsi, quomodo res nunc se habent, magni prorsus sit usus. Etenim si ciphræ introductæ essent bonæ et fideles, plurimæ fuerint, quæ operam deciphratoris prorsus eluderent, et exeluderent; quæ tamen sint satis commodæ et expeditæ ad legendum aut scribendum. Verum imperitia et inscitia secretariorum et amanuensium in aulis principum tanta est, ut maxima plerunque negotia ciphris infirmis et futilibus committantur.

Interea fieri potest, ut suspicetur quispiam nos in enumeratione, et quasi censu artium, id agere, ut scientiarum copiæ (quas veluti in aciem adduximus) auctæ et multiplicatæ, magis sint admirationi; cum tamen numerus earum forte ostentari, vires tam brevi tractatu vix explicari possint. Verum nos institutum nostrum fideliter urgemus, atque in hoc globo scientiarum conficiendo, etiam insulas minores aut remotiores omitti nolumus. Neque vero (ut arbitramur) perfunctorie, licet cursim, eas artes attingimus; sed potius nucleos et medullas ipsarum ex multa materiæ massa stylo acuto excerpimus. Cujus rei judicium ipsis illis, qui in hujusmodi artibus peritissimi sunt, permittimus: cum enim plerique, qui multiscii videri volunt, hoc fere habeant, ut vocabula et exteriora artium passim jactantes, illarum ignaris admirationi, magistris ludibrio sint, speramus nostra contrarium prorsus eventum habitura, ut peritissimi cujusque in artibus singulis judicium maxime detineant, cæteris minoris sint. Quod vero ad artes illas, quæ minorum quasi gentium videri possunt; si quis existimet nos nimium quid ipsis tribuere; circumspiciat ille, et videbit, homines in provinciis suis magnos sane et celebres, cum ad metropolim aut sedem imperii forte migraverint, turbæ fere immisceri, et inferioris notæ esse: similiter mirum non est artes istas leviores, juxta artes principales et supremas collocatas, dignitate minui; eum tamen iis, qui operam illis præcipue impenderint, res videantur utique magnæ et præclaræ. Atque de organo sermonis hæc dicta sint.

CAPUT SECUNDUM.

Doctrina de methodo sermonis constituitur ut pars traditivæ substantiva ut principalis: nomen ei inditur prudentia traditivæ. Enumerantur methodi genera diversa; et subjunguntur eorum commoda et incommoda.

VENIAMUS ad doctrinam de methodo sermonis. Ea ut pars dialecticæ tractari consuevit. Etiam locum in rhetorica per nomen dispositionis reperit. Verum collocatio ejus in famulitio aliarum artium in causa fuit, ut plurima, quæ ad ipsam spectant, cognitu utilia, prætermissa sint. Visum igitur est nobis doctrinam substantivam et principalem de methodo constituere, quam nomine generali prudentiam traditivæ appellamus. Itaque methodi genera (cum varia sint) enumerabimus potius, quam particemur. Atque de unica methodo, et dichotomiis perpetuis,

nil attinet dicere: fuit enim nubecula quædam doctrinæ, quæ cito transiit: res certe simul et levis, et scientiis damnosissima. Etenim hujusmodi homines, cum methodi suæ legibus res torqueant; et quæcunque in dichotomias illas non apte cadunt, aut omittant, aut præter naturam inflectant; hoc efficiunt, ut quasi nuclei et grana scientiarum exiliant, ipsi aridas tantum et desertas siliquas stringant. Itaque inania compendia parit hoc genus methodi, solida scientiarum destruit.

Constituatur igitur prima differentia methodi, ut sit aut magistralis, aut initiativa. Neque vero verbum initiativæ ita intelligimus, quasi hæc initia scientiarum tantum traderet, illa doctrinam integram: verum contra (vocabulum a sacris mutuantes) eam dicimus methodum initiativam, quæ ipsa scientiarum mysteria recludat, et denudet. Magistralis siquidem docet; initiativa intimat: magistralis poscit, ut fides habeatur iis, quæ dicuntur; initiativa vero potius ut examen subeant: altero scientias discentium vulgo; altera tanquam filiis scientiarum tradit; denique altera pro fine habet scientiarum (quales jam sunt) usum; altera earundem continuationem et ulteriorem progressum. Harum posterior via videtur deserta et interclusa. Ita enim adhuc scientiæ tradi consueverunt, quasi ex pacto, tam docens quam discens errores asciscere cupiant. Etenim qui docet, eo docet modo, quo maxime dictis suis fides astruatur, non quo illa commodissime examini subjiciantur: et qui discit, sibi extemplo satisfieri, non legitimam disquisitionem præstolari, expetit; ut magis sit ei cordi non dubitare, quam non errare. Ita ut et magister, amore gloriæ, infirmitatem scientiæ suæ prodere caveat, et discipulus, laboris odio, vires proprias experiri nolit. Scientia vero, quæ aliis tanquam tela pertexenda traditur, eadem methodo (si fieri possit) animo alterius est insinuanda, qua primitus inventa est. Atque hoc ipsum fieri sane potest in scientia per inductionem acquisita: sed in anticipata ista et præmatura scientia (qua utimur) non facile dicat quis, quo itinere ad eam, quam nactus est, scientiam pervenerit. Attamen sane secundum majus et minus possit quis scientiam propriam revisere, et vestigia suæ cognitionis simul et consensus remetiri; atque hoc pacto scientiam sic transplantare in animum alienum, sicut crevit in suo. Artibus enim idem usuvenit quod plantis: si planta aliqua uti in animo habeas, de radice quid fiat, nil refert: si vero transferre cupias in aliud solum, tutius est radicibus, uti, quam surculis. Sic traditio (quæ nunc in usu est) exhibet plane tanquam truncos (pulchros illos quidem) scientiarum; sed tamen absque radicibus fabro lignario certe commodos, at plantatori inutiles. Quod si. disciplinæ ut crescant, tibi cordi sit, de truncis minus sis solicitus; ad id curam adhibe, ut radices illæsæ, etiam cum aliquantulo terræ adhærentis, extrahantur. Cujus quidem generis traditionis, methodus mathematicorum, in eo subjecto, similitudinem quandam habet; generatim autem non video, quod aut in usu sit, aut quod quis inquisitioni ejus dederit operam; proinde eam inter desiderata numerabimus, eamque traditionem lampadis, sive methodum ad filios appellabimus.

Sequitur aliud methodi discrimen, priori intentione affine, reipsa fere contrarium. Hoc enim habet utraque methodus commune, ut vulgus auditorum a selectis separet; illud oppositum, quod prior introducit modum tradendi solito apertiorem; altera, de qua jam dicemus, occultiorem. Sit igitur discrimen tale, ut altera methodus sit exoterica, altera acroamatica. Etenim quam antiqui adhibuerunt præcipue in edendis libris differentiam; eam nos transferimus ad ipsum modum tradendi. Quinetiam acroamatica ipsa apud veteres in usu fuit, atque prudenter et cum judicio adhibita. At acroamaticum sive ænigmaticum istud dicendi genus posterioribus temporibus dehonestatum est a plurimis, qui eo, tanquam lumine ambiguo et fallaci, abusi sunt ad merces suas adulterinas extrudendas. Intentio autem ejus ea esse videtur, ut traditionis involucris vulgus (profanum scilicet) a secretis scientiarum summoveatur; atque illi tantum admittantur, qui aut per manus magistrorum parabolarum interpretationem nacti sunt, aut proprio ingenii acumine et subtilitate intra velum penetrare possint.

Sequitur aliud methodi discrimen, magni prorsus ad scientias momenti; cum scilicet scientiæ traduntur, aut per aphorismos, aut methodice. Notatu enim imprimis dignum est in consuetudinem plerunque venisse, ut homines ex pauculis axiomatibus et observationibus, in quovismodo subjecto, artem constituant quasi completam et solennem, eam ingenii quibusdam commentationibus suffarcinando, exemplis illustrando, et methodo revinciendo. At illa altera traditio per aphorismos plurima seeum fert commoda, ad quæ traditio methodica non attingit. Primum enim de scriptore specimen dat, utrum ille leviter et perfunctorie scientiam hauserit, an penitus imbiberit. Aphorismi enim, nisi prorsus forent ridiculi, necesse est, ut ex medullis et interioribus scientiarum conficiantur. Absciditur enim illustratio et exeursio; absciditur varietas exemplorum; absciditur deductio et connexio; absciditur descriptio practicæ: ut ad materiem aphorismorum nihil relinquatur, præter copiam observationum bene amplam. Igitur ad aphorismos non sufficiet quispiam, imo de eis nec cogitabit sane, qui se nentiquam copiose et solide instruetum ad scribendum perspexerit. At in methodis;

—"Tantum series juncturaque pollet;
Tantum de medio sumptis accedit honoris;"

ut speciem artis, nescio cujus, præclare sepenumero reportent ea, quæ, si solvantur, segregentur, et dennbentur, ad nihilum fere recasura forent. Secundo, traditio methodica ad fidem et consensum valet; ad indicationes de praxi minus innuit, siquidem demonstrationem quandam in orbe præ se fert, partibus se inviecm illuminantibus, ideoque intelleetui satisfacit magis; quia vero actiones in vita communi sparguntur, non ordine componuntur, ideo magis iisdem conducunt etiam sparsa documenta. Postremo, aphorismi, cum scientiarum portiones quasdam et quasi frusta tantum exhibeant, invitant, ut alii etiam aliquid adjiciant et erogent; traditio vero methodica, dum scientiam integram ostentat, securos illico homines reddit, quasi jam summa adeptos.

Sequitur aliud methodi discrimen, magni et illud

quoque momenti : cum scilicet scientiæ traduntur, aut per assertiones adjectis probationibus, aut per quæstiones una cum determinationibus. Hanc autem posteriorem methodum si immoderatius quis persequatur, scientiarum profectui non minus illa officit, quam fortunis et progressibus exercitus cujuspiam impedimento et damno foret, si in minutis quibusque castellis aut oppidis expugnandis subinde hæreat. Etenim si quis in acie sit superior, et summæ belli sedulo incumbat, minora illa loca ultro se submittent : illud tamen inficias non iverim, urbem aliquam magnam et munitam a tergo relinquere, haudquaquam semper tutum esse : eodem modo, confutationibus in scientiarum traditione temperandum, iisque parce utendum : et ad hoc tantum, ut majores præoccupationes animorum et præjudicia frangantur, minime autem ut leviores dubitationes excitentur et provocentur.

Sequitur aliud methodi discrimen, ut scilicet methodus sit subjectæ materiæ, quæ tractatur, accommoda. Alio enim modo traduntur mathematica (quæ sunt inter scientias maxime abstracta et simplicia) alio politica, quæ maxime sunt immersa et composita. Neque (ut jam diximus) methodus uniformis in materia multiformi commode se habere potest. Equidem quemadmodum topicas particulares ad inveniendum probavimus, ita et methodos particulares ad tradendum similiter aliquatenus adhiberi volumus.

Sequitur aliud methodi discrimen in tradendis scientiis cum judicio adhibendum. Illud autem regitur per informationes et anticipationes de scientia (quæ tradenda est) in animis discentium prius infusas et impressas. Aliter enim tradi debet scientia, quæ ad animos hominum nova et peregrina prorsus accedit; aliter ea, quæ opinionibus jam pridem imbibitis et receptis est affinis et familiaris. Ideoque Aristoteles Democritum sugillare cupiens, revera eum laudat : " Si," inquit, " serio disputare velimus, non sectari similitudines," etc. id vitio vertens Democrito, quod in comparationibus esset nimius. At illi, quorum documenta in opinionibus popularibus jam sedes suas collocarunt, non aliud habent, quod agant, nisi ut disputent et probent. Illis contra, quorum dogmata opiniones populares transcendunt, gemino labore opus est : primo ut intelligantur quæ afferunt : deinde ut probentur ; ita ut necessum habeant confugere ad auxilia similitudinum et translationum, quo se captui hominum insinuent. Videmus igitor sub infantia doctrinarum seculis rudioribus, cum syllepses illæ, quæ jam factæ sunt vulgares et tritæ, novæ fuerant et inauditæ, omnia parabolis et similitudinibus plena fuisse. Alias evenisset, ut quæ proponebantur, aut absque nota seu attentione debita transmissa, aut pro paradoxis rejecta, fuissent. Etenim regula quædam est traditivæ, quod scientia omnis, quæ anticipationibus sive præsuppositionibus non est consona, a similitudinibus et comparationibus suppetias petere debeat.

Atque de methodorum diversis generibus hæc dicta sint : iis videlicet, quæ antehac ab aliis notata non fuerunt : nam quantum ad cæteras illas methodos, analyticam, systaticam, diæreticam, etiam crypticam, Homericam, et similes, recte sunt eæ inventæ et distributæ ; neque causa videtur, cur illis immoremor.

At methodi genera hujusmodi sunt : partes autem duæ ; altera de dispositione totius operis, vel argumenti libri alicujus ; altera de limitatione propositionum. Etenim ad architecturam spectat, non solum fabrica totius ædificii, sed etiam efformatio et figura columnarum, trabium, et similium. Methodus vero veluti scientiarum architectura est. Atque hac in parte melius meruit Ramus, in optimis illis regulis (*καθόλου πρῶτον, κατὰ παντὸς, καθ' αὐτὸ*, etc.) renovandis, quam in unica sua methodo et dichotomiis obtrudendis. Veruntamen nescio quo fato fit, ut in humanis (sicut sæpius fingunt poëtæ) rebus pretiosissimis semper adhibeantur perniciosissimi quique custodes. Certe conatus Rami circa illam propositionum limam conjecit eum in epitomas illas et scientiarum vada. Auspicato enim et felicis cujusdam genii ductu procedere oportet, qui axiomata scientiarum convertibilia facere attentaverit, et non simul ea reddiderit circularia, aut in semet recurrentia. Conatum nihilo scelus Rami in hac parte utilem fuisse non inficiamur.

Supersunt duæ adhuc propositionum limitationes, præter eam ut fiant convertibiles ; altera de extensione ; altera de productione ipsarum. Sane habent scientiæ, si quis recte advertat, præter profunditatem, alias duas dimensiones ; latitudinem scilicet ac longitudinem suam. At profunditas quidem ad ipsarum veritatem et realitatem refertur : hæ enim sunt, quæ soliditatem conferunt. Quantum ad reliquas duas, latitudo accipi et computari potest de scientia in scientiam ; longitudo vero sumitur a summa propositione ad imam in eadem scientia. Altera fines et veros scientiarum terminos complectitur, ut propositiones proprie, non promiscue tractentur ; et evitetur repetitio, excursio, deniqne confusio omnis : altera normam præscribit, quousque et ad quem particularitatis gradum propositiones scientiarum sint deducendæ. Sane dubium non est, quin aliqoid exercitationi et practicæ sit relinquendum ; oportet siquidem Antonini Pii vitium evitari, ne simus cymini sectores in scientiis, neve divisiones ad infima quæque multiplicemus. Itaque qualiter in hac parte nobis ipsi temperemus, inquisitione plane dignum est. Videmus enim nimium generalia (nisi deducantur) parum informare, quin potios hominum practicorum ludibrio scientias exponere, cum nihilo magis ad practicam faciant, quam chorographia Ortelii universalis ad viam monstrandam, quæ Londino ducit Eboracum. Certe regulæ optimæ speculis ex metallo non inscite assimilantur, in quibus cernuntur utique imagines, sed non antequam expolita fuerint ; sic juvant demum regulæ et præcepta, postquam exercitationis limam subierint. Quod si tamen, usque a principio, regulæ illæ fieri possint nitidæ, et quasi crystallinæ, id optimum factu foret, quandoquidem exercitatione assidua minus indigebunt. Atque de scientia methodi (quam prudentiam traditivæ nominavimus) hæc dicta sint.

Neque tamen illud prætermittendum, quod nonnulli, viri magis tumidi quam docti, insudarunt circa methodum quandam, legitimæ methodi nomine haud dignam, cum potius sit methodus imposturæ ; quæ

tamen quibusdam ardelionibus acceptissima procul dubio fuerit. Hæc methodus ita scientiæ alicujus guttulas aspergit, ut quis sciolus specie nonnulla eruditionis ad ostentationem possit abuti. Talis fuit ars Lullii; talis typocosmia a nonnullis exarata; quæ nihil aliud fuerunt, quam vocabulorum artis cujusque massa et acervus; ad hoc, ut qui voces artis habeant in promptu, etiam artes ipsas perdidicisse existimentur. Hujus generis collectanea officinam referunt veteramentariam, ubi præsegmina multa reperiuntur, sed nihil quod alicujus sit pretii.

CAPUT TERTIUM.

De fundamentis et officio rhetoricæ. Appendices tres rhetoricæ, quæ ad promptuariam tantummodo pertinent: colores boni et mali, tam simplicis, quam comparati: antitheta rerum: formulæ minores orationis.

Venimus jam ad doctrinam de illustratione sermonis. Ea est, quæ rhetorica dicitur, sive oratoria. Scientia certe et in se egregia, et egregie a scriptoribus exculta. Eloquentia autem, si quis vere rem æstimet, sapientia proculdubio est inferior. Videmus enim, quanto intervallo hæc illam post se relinquat, in verbis quibus allocutus est Mosem Deus, cum ille munus sibi delatum, propter defectum elocutionis recusasset; "Habes Aaronem, ille erit tibi vice oratoris, tu vero ei vice Dei." At fructu, et populari existimatione, sapientia eloquentiæ cedit. Ita enim Salomon, "Sapiens corde appellabitur prudens, sed duleis eloquio majora reperiet." Haud obscure innuens, sapientiam famam quandam et admirationem cuipiam conciliare; at in rebus gerendis, et vita communi, eloquentiam præcipue esse efficacem. Ad artis vero hujus culturam quod attinet; Aristotelis erga rhetores sui temporis æmulatio, atque Ciceronis studium acre et vehemens, illi nobilitandæ totis viribus incumbens, cum longo usu conjunctum, in causa fuerunt, ut in libris suis de hac arte conscriptis seipsos vicerint. Dein exempla illa luculentissima hujusce artis, quæ in orationibus Demosthenis et Ciceronis habentur, præceptorum acumini et diligentiæ addita, profectus ipsius geminarunt. Quare, quæ in hac arte desiderari invenimus, versantur potius in collectionibus quibusdam, quæ tanquam pedissequæ huic arti præsto sint, quam in disciplina et usu artis ipsius. Nam etiam tum, cum promptuariæ cujusdam inter logica mentionem faceremus, uberiora ejus rei exempla in rhetoricis polliciti sumus.

Veruntamen ut, more nostro, circa radices hujus artis glebam paululum aperiamus et subigamus; rhetorica certe phantasiæ, quemadmodum dialectica intellectui, subservit. Estque, siquis altius rem penetret, officium et munus rhetoricæ non aliud, quam ut rationis dictamina phantasiæ applicet et commendet, ad excitandum appetitum et voluntatem. Regimen enim rationis impeti et perturbari videmus tribus modis: vel per illaqueationem sophismatum, quod ad dialecticam pertinet; vel per præstigias verborum, quod ad rhetoricam; vel per affectuum violentiam, quod ad ethicam. Quemadmodum enim in negotiis, quæ eum aliis contrahimus, vinci quis et perduci solet, vel astu, vel importunitate, vel vehementia; ita etiam in illa negotiatione interna, quam nobiscum exercemus, aut argumentorum fallaciis subruimur, aut impressionum et observationum assiduitate solicitamur, et inquietamur, aut affectuum impetu concutimur et rapimur. Neque vero tam infelicieter agitur eum natura humana, ut illæ artes et faeultates ad rationem deturbandam valeant, neutiquam vero ad eandem roborandam et stabiliendam: verum ad hanc rem longe magis. Finis enim dialectieæ est, docere formam argumentorum, ad præsidia intellectus, non ad insidias. Finis itidem ethicæ, affectus ita componere, ut rationi militent, non autem eam invadant. Finis denique rhetoricæ, phantasiam implere observationibus et simulacris, quæ rationi suppetias ferant, non autem eam opprimant. Abusus enim artis ex obliquo tantum interveniunt, ad eavendum, non ad utendum.

Quapropter in Platone summa fuit iniquitas (licet ex non immerito erga rhetores sui temporis odio orta) eum rhetoricam inter artes voluptarias collocavit: eam similem esse dicens eoquinariæ, quæ non minus cibos salubres corrumperet, quam insalubres gratiores redderet, condimentorum varietate et deliciis abutens. Absit autem, ut oratio non frequentius versetur in rebus honestis ornandis, quam in turpibus oblinendis: hoc enim ubique præsto est; siquidem nemo est, quin honestius loquatur, quam aut sentiat, aut faciat. Sane a Thucydide optime notatum est, tale quidpiam solitum fuisse objici Cleoni; quod, cum semper deteriorem partem tueretur, in hoc multus esset, ut eloquentiam et sermonis gratiam carperet: probe quippe eum sciret, de rebus sordidis et indignis non posse quempiam pulchre loqui; at de rebus honestis, facillime. Eleganter enim Plato (licet jam in trivio decantetur) "virtus si conspici daretur, ingentes sui amores concitaret." At rhetoriea virtutem et bonum depingit plane, et reddit quasi conspieuum. Cum enim in corporea effigie, illa sensui monstrari nequeant, superest ut per ornatum verborum, phantasiæ, repræsentatione quantum fieri potest viva, coram sistantur. Siquidem mos Stoicorum merito derisus est a Cicerone; qui concisis et argutis sententiis et conclusionibus virtutem animis hominum imponere satagebant; quæ res parvum habet eum phantasia et voluntate consensum.

Porro, si affectus ipsi in ordinem compulsi, et rationi prorsus morigeri essent; verum est, nullum magnopere futurum persuasionum et insinuationum, quæ aditum ad mentem præbere possint, usum; sed satis fore, si res ipsæ nude et simpliciter proponantur, et probentur. Verum affeetus contra, tantas secessiones faciunt; quinetiam tantas turbas et seditiones movent (seeundum illud,

—"Video meliora, proboque,
Deteriora sequor")

ut ratio prorsus in servitutem et eaptivitatem abrepta foret, nisi eloquentiæ Suada efficeret quo minus phantasia a partibus affeetuum staret, sed potius, opera ejus, fœdus ineatur inter rationem et phanta-

siam, contra effectus. Notandum est enim, affectus ipsos ad bonum apparens semper ferri, atque hac ex parte aliquid habere cum ratione commune : verum illud interest; quod affectus intuentur præcipue bonum in præsentia ; ratio prospiciens in longum, etiam futurum, et in summa. Ideoque cum quæ in præsentia obversentur, impleant phantasiam fortius, succumbit plerumque ratio, et subjugatur. Sed postquam eloquentia et suasionum vi effectum sit, ut futura et remota constituantur et conspiciantur tanquam præsentia, tum demum, abeunte in partes rationis phantasia, ratio fit superior.

Concludamus igitur, non deberi magis vitio verti rhetoricæ, quod deteriorem partem eohonestare sciat; quam dialecticæ, quod sophismata concinnare doceat. Quis enim nescit, contrariorum eandem rationem esse, licet usu opponantur? Porro non eo tantum differt dialectica a rhetorica, quod (ut vulgo dicitur) altera instar pugni, altera instar palmæ sit (altera scilicet presse, altera fuse tractet) verum multo magis, quod dialectica rationem in suis naturalibus; rhetorica, qualis in opinionibus vulgi sita est, consideret. Prudenter igitur Aristoteles rhetoricam inter dialecticam et ethicam cum politica collocat, cum ex utrisque participet. Siquidem probationes et demonstrationes dialecticæ universis hominibus sunt communes; at probationes et suasiones rhetoricæ pro ratione auditorum variari debent; ut quis, tanquam musicus, auribus diversis se accommodans, sit demum

" Orpheus in sylvis, inter delphinas Arion."

Quæ quidem applicatio et variatio orationis (si quis ejus perfectionem et culmen desideret) eo usque extendi debet; ut si eadem ipsa apud diversos homines sint dicenda, apud singulos tamen aliis atque aliis verbis sit utendum. Quanquam hac parte eloquentiæ (politica scilicet et negotiosa, in privatis sermonibus) maximos oratores plerunque destitui certum sit; dum ornatum et formulas elegantes orationis captantes, volubili illa applicatione, et characteribus sermonum, quibus versus singulos uti consultus foret, excidunt. Certe non abs re fuerit, circa hoc ipsum, de quo nunc dicimus, novam instituere inquisitionem, eamque nomine prudentiæ sermonis privati indigitare, atque inter desiderata reponere; rem certe, quam quo attentius quis recogitet, eo pluris faciet. Utrum vero hæc inter rhetorica an politica collocetur, haud magni refert.

Descendamus modo ad desiderata in hac arte, quæ (ut ante diximus) ejus sunt generis, ut pro appendicibus potius censeri debeant, quam pro portionibus artis ipsius, et pertinent omnia ad promptuariam. Primo igitur non invenimus, qui prudentiam illam, simul et diligentiam Aristotelis, bene perseeutus sit, aut suppleverit. Hic nimirum cœpit colligere signa popularia, sive colores boni ac mali apparentis, tam simplicis quam comparati, qui sunt vere sophismata rhetorica. Sunt autem eximii usus, præsertim ad negotia, et prudentiam sermonis privati. Labores vero Aristotelis circa colores istos in tribus claudicant. Primo, quod, cum multi sint, paucos admodum recenseat. Secundo, quod elenchos suos non habeant adjunctos. Tertio, quod videtur ille usum eorum ex parte ignorasse. Usus enim eorum, non magis ad probandum, quam ad afficiendum et commovendum, subservit. Complures siquidem loquendi formulæ, quæ idem significant, varie tamen afficiunt. Nam longe fortius penetrat, quod acuminatum est, quam quod obtusum; licet in ipsa percussione vires æqualiter intentantur. Nemo est certe, qui non magis afficiatur audiens, Inimici tui de hoc miros trimphos agent:

" Hoc Ithacus velit, et magno mercentur Atridæ;"

quam si simpliciter dicatur, Hoc rebus tuis incommodabit. Itaque mucrones isti, et aculei sermonum, minime sunt negligendi. Cum vero hanc rem, ut desideratam proponamus, ex consuetudine nostra, illam exemplis fulciemus : præcepta enim minus rem illustraverint.

EXEMPLA COLORUM BONI ET MALI TAM SIMPLICIS QUAM COMPARATI.

SOPHISMA I.

" Quod laudant homines et celebrant, bonum; quod vituperant et reprehendunt, malum."

ELENCHUS.

Fallit sophisma quatuor modis; scilicet, aut propter ignorantiam; aut propter malam fidem; aut propter studia et factiones; aut propter ingenia laudatorum et vituperatorum. Propter ignorantiam; quid vulgi judicium ad examen boni et mali? Melius Phocion, qui, cum populus ei præter solitum applauderet, quæsivit, num forte deliquisset? Propter malam fidem; laudantes enim et vituperantes suam rem sæpius agunt, neque loquuntur ut sentiunt.

" Laudat venales qui vult extrudere merces."

Item, " Malum est, malum est, inquit emptor; sed cum recesserit, tum gloriabitur." Propter factiones; cuivis enim patet, consuescere homines, eos, qui suarum partium sunt, immodicis efferre laudibus, qui autem contrariarum sunt, infra meritum deprimere. Propter ingenia; alii enim natura facti sunt et compositi ad adulationem servilem; alii contra momi et tetrici; ut laudando et vituperando suis ingeniis tantum obsecundent, parum de veritate soliciti.

SOPHISMA II.

" Quod etiam ab inimicis laudatur, magnum bonum; quod vero etiam ab amicis reprehenditur, magnum malum."

Sophisma fundamento hoc niti videtur, quod quæ ingratiis, et contra animi nostri affectum et propensionem loquimur, ea ipsa vim veritatis a nobis extorquere, facile ereditur.

ELENCHUS.

Fallit sophisma propter astutiam, tam inimicorum, quam amicorum. Inimici enim laudes quandoque tribuunt, non invite, nec a vi veritatis coacti, sed eas tamen deligentes, quæ inimicis suis invidiam et pericula conflare possint. Itaque apud Græcos superstitio quædam invaluit, ut crederent, si quis ab al-

tero laudaretur, animo malevolo et proposito nocendi, naribus ejus pustulam annasci solere. Fallit iterum, quia laudes interdum impertiunt inimici, tanquam præfatiunculas quasdam, ut postea liberius et malitiosius calumniarentur. Ex altera parte, fallit etiam hoc sophisma propter astutiam amicorum. Solent enim et illi vitia amicorum interdum agnoscere, et prædicare, non quod aliqua vis veritatis eos cogat, sed ea eligentes, quæ minimum amicos suos lædere possint, ac si cætera quidem viri optimi essent. Fallit iterum, quia amici quoque reprehensionibus suis (sicut de inimici laudibus diximus) tanquam præfatiunculis quibusdam utuntur, quo paulo post in laudes effusius excurrant.

SOPHISMA III.

"Cujus privatio bona, id ipsum malum; cujus privatio mala, id ipsum bonum."

ELENCHUS.

Fallit sophisma duobus modis; aut propter comparationem boni et mali; aut propter successionem boni ad bonum, aut mali ad malum. Propter comparationem; si bonum fuerit generi humano, privari esu glandium, non sequitur quod malus ille erat; sed Dodona bona, Ceres melior. Neque, si malum fuit populo Syracusano, Dionysio seniore privari, sequitur quod Dionysius ille bonus fuerit, sed minus malus, quam junior. Propter successionem: etenim privatio boni alicujus non semper dat locum malo, sed quandoque majori bono; ut cum flos decidit, fructus succedit. Nec privatio alicujus mali dat semper locum bono, sed interdum majori malo: nam sublato inimico Clodio, Milo simul et segetem gloriæ perdidit.

SOPHISMA IV.

"Quod bono aut malo vicinum est, id ipsum itidem bonum aut malum: quod vero remotum est a bono, malum; quod a malo, bonum."

Habet hoc fere rerum natura, ut quæ natura sua conveniunt, etiam locis coveniant; quæ vero contrariæ naturæ sunt, etiam intervallis distent: cum singula, amica sibi associare, inimica summovere gaudeant.

ELENCHUS.

Sed fallit sophisma tribus modis: primo propter destitutionem, secundo propter obscurationem, tertio propter protectionem. Propter destitutionem; fit, ut quæ in suo genere amplissima sunt, et maxime excellunt, omnia, quantum fieri potest, ad se trahant, et in vicino quæque posita destituant, ac quasi inedia conficiant. Itaque in propinquo arborum graudium virgulta nunquam læta reperies. Recte enim ille, "Divitis servi maxime servi." Nec male cavillatus est, qui inferius famulitium in aulis principum, festorum vigiliis comparavit; quæ festa sua in proximo attingunt, ipsæ autem jejuniis addicuntur. Propter obscurationem; etenim et hoc habent quæque in suo genere præstantissima, ut licet proxima non extenuent aut destituant, tamen obscurent et obumbrent. Quod etiam de sole notant astronomi, quod sit scilicet aspectu bonus, conjunctione et approximatu malus. Propter protectionem; nam non solum res coëunt et congregantur propter consortium, et naturæ similitudinem, sed etiam malum (præsertim in civilibus) confugit ad bonum, ut lateat et protegatur. Itaque scelerati homines petunt asyla divorum, et vitium ipsum se in virtutis umbram recipit:

"Sæpe latet vitium proximitate boni."

Contra et bonum se aggregat ad malum, non propter consortium, sed ut illud convertat et reformet in bonum. Itaque et medici magis accedunt ad ægrotos, quam ad sanos; et Servatori nostro objectum est, quod conversaretur cum publicanis et peccatoribus.

SOPHISMA V.

"Cui cæteræ partes, vel sectæ, secundas unanimiter deferunt (eum singulæ principatum sibi vendicent) melior reliquis videtur: nam primas quæque ex zelo videtur sumere, secundas autem ex vero et merito tribuere."

Ita Cicero argumentatur, sectam Academicorum, quæ acatalepsiam tenuit, philosophiarum fuisse præstantissimam. "Interroga enim" inquit "Stoicum, quæ secta sit potior; ille suam cæteris anteponet: deinde quæ secundas teneat, Academicam fatebitur. Age similiter cum Epicureo (qui Stoici vix aspectum toleraverit) postquam suam sectam collocarit in summo, collocabit Academicam in proximo." Similiter, quandoque aliqua, princeps si competitores singulos interrogaret, quem post se potissimum commendare vellent, verisimile est, secunda illorum vota in eum, qui præcipue dignus et optime meritus fuerit, coneursura.

ELENCHUS.

Fallit sophisma propter invidiam. Solent enim homines proxime post se, et factionem suam, in eos inclinare et propendere, qui reliquorum maxime sint enerves et imbelles, quique eis minimum molestiæ exhibuerunt; in odium illorum, qui illis plurimum insultarunt aut incommodarunt.

SOPHISMA VI.

"Cujus excellentia vel exuperantia melior, id toto genere melius."

Hue pertinent formulæ illæ usitatæ; ne pervagemur in generalibus: conferamus particularem aliquem eum particulari, etc.

ELENCHUS.

Videtur hoc sophisma satis nervosum; et magis dialecticum quiddam, quam rhetoricum. Attamen interdum fallit. Primo, quia sunt res haud paucæ, periculo plurimum obnoxiæ, quæ tamen, si evadant, cæteris antecellant. Ita ut genere sint deteriores, quia sæpius periclitantur et exeidunt; individuo autem nobiliores. In hoc numero est gemma Martia, de qua Gallicum adagium: "Filius Parisiorum, et gemma mensis Martii, si ex illis evadat unus, erit instar decem aliorum." Adeo ut in genere gemma Maii gemmæ Martii præstet, sed tamen in individuo optima genuma Martii optimæ gemmæ Maii præ-

feratur. Fallit secundo; propter naturam rerum, in aliquibus generibus aut speciebus magis æqualem, in aliquibus magis inæqualem. Quemadmodum in observationem venit, climata calidiora generaliter ingenia producere acutiora; at in frigidioribus ingenia illa, quæ eminent, etiam acutissimis calidarum regionum præstare. Similiter, in exercitibus compluribus, si res duello inter singulos transigeretur, fortasse ad unam partem accederet victoria; si copiis universis, in alteram. Etenim excellentiæ et exuperantiæ casum recipiunt; at genera natura aut disciplina reguntur. Quinetiam in genera metallum lapide pretiosius; attamen adamas præcellit auro.

SOPHISMA VII.

" Quod rem integram servat, bonum; quod sine receptu est, malum: nam se recipere non posse, impotentiæ genus est; potentia autem bonum."

Hinc confinxit Æsopus fabulam de duabus ranis; quæ, in magna siccitate cum aquæ ubique deficerent, deliberarunt, quid sibi demum agendum esset. Prior antem; Descendamus (inquit) in puteum profundum, neque enim verisimile est ibi aquam defuturam. Cui altera ita regerit; Quin si forte ibi quoque aqua deficiet, quomodo exinde rursus ascendere poterimus? Firmamentum autem hujus sophismatis est; quod actiones humanæ adeo sint incertæ, et periculis expositæ, ut illud optimum videatur, quod plurima habeat effugia. Huc spectant formulæ illæ, quæ in usu sunt: Obligatum plane et obstrictum te reddes: non tantum, quantum voles, sumes ex fortuna, etc.

ELENCHUS.

Fallit sophisma primo, quia in actionibus humanis fortuna urget, ut aliquid demum decernatur. Etenim ut eleganter a quopiam dictum est; Etiam non statuere, est aliquid statuere: adeo ut sæpenumero consilii suspensio pluribus nos implicet necessitatibus, quam si aliquid statuissemus. Videtur autem iste morbus quidam animi, similis ei, qui reperitur in avaris: sed translatus a cupiditate retinendi opes, ad cupiditatem retinendi arbitrium et potestatem. Siquidem avarus frui non vult, ne quid detrahat de summa; ita et hujusmodi scepticus nil exequi vult, ut omnia ei sint integra. Fallit secundo, quia necessitas, et illud (quod aiunt) " jacta est alea," stimulos addit animis; sicut inquit ille, Cæteris pares, necessitate certe superiores estis.

SOPHISMA VIII.

" Quod quis culpa sua contraxit, majus malum; quod ab externis imponitur, minus malum."

Hujus rei causa est, quod morsus conscientiæ adversa conduplicet: contra, conscium sibi esse, quod culpa quis vacet, magnum præbet in calamitate solatium. Itaque poëtæ ea pathemata maxime exaggerant, tanquam desperationi propiora, ubi quis seipsum accuset, et discrucict:

" Seque unum clamat causamque caputque malorum."

Contra, calamitates virorum insignium elevat et diluit innocentiæ et meriti conscientia. Porro cum malum ab aliis intentetur, habet quivis, quod libere conqueri possit; unde dolores sui exhalent, neque cor suffocent: etenim iis, quæ ab injuria hominum profecta sunt, indignari solemus, aut ultionem meditari, aut denique nemesim divinam vel implorare, vel expectare: quinetiam, si a fortuna ipsa inflictum quid sit, tamen datur quædam cum fatis ipsis expostulatio:

" Atque Deos, atque astra vocat crudelia mater."

Contra, ubi quis malum aliquod sua culpa contraxerit, stimuli doloris intro vertuntur, animumque magis vulnerant et confodiunt.

ELENCHUS.

Fallit istud sophisma, primo propter spem; quæ malorum magnum est antidotum. Etenim culpæ emendatio sæpe in nostra potestate sita est; fortunæ vero minime. Itaque Demosthenes, non semel cives suos hujusmodi verbis affatus est; " Quod ad præterita pessimum, id ad futura optimum est. Quid hoc tandem sit? Hoc ipsum scilicet, quod vestra incuria et culpa res vestræ male se habeant: nam si vos officio vestro per omnia perfuncti essetis, et nihilominus status vester, ut nunc, laborasset; ne spes quidem reliqua esset, eum futurum aliquando meliorem. Cum vero errores vestri in causa potissimum fuerint, confidendum plane, vos, illis emendatis, pristinum statum vestrum recuperaturos." Similiter Epictetus, de gradibus tranquillitatis animi verba faciens, infimum locum illis attribuit, qui alios accusant; superiorem iis, qui seipsos; supremum vero illis, qui nec alios nec seipsos. Fallit secundo, propter insitam animis humanis superbiam; qua ægre adducuntur homines, ut errores proprios agnoscant. Hoc vero ut evitent, patientiam adhibent longe majorem in iis malis, quæ culpa sua contraxerunt. Etenim, quemadmodum fieri videmus, ut cum culpa admissa sit, neque de auctore constiterit, supra modum excandescant homines, et tumultuentur: quod si postea in notitiam pervenerit, culpam illam ad filium, aut uxorem, aut gratiosum aliquem pertinere, statim sedantur turbæ et consilescunt: eodem modo fit, cum res aliqua accidit, propter quam necessitas incumbit culpam in nos ipsos recipiendi. Id quod in mulieribus sæpissime conspicitur, quæ, si quid infeliciter egerunt, contra consensum parentum aut amicorum, qualecunque infortunium sequatur, illud sedulo dissimulabunt.

SOPHISMA IX.

" Gradus privationis major videtur, quam gradus diminutionis: et rursus gradus inceptionis major videtur, quam gradus incrementi."

Canon est in mathematicis; nullas esse rationes nihili ad aliquid. Itaque gradus nullitatis et quiditatis, majores videntur gradibus incrementi et decrementi. Sicut monoculo durius est, unum perdere oculum, quam utrumque oculum habenti. Similiter complures liberos habenti gravius est, ultimum, qui superstes fuerit, filium amittere, quam reliquos priores. Itaque et Sibylla, cum duos priores libros combussisset, pretium tertii duplicavit: siquidem illius amissio gradus fuisset privationis, non diminutionis.

ELENCHUS.

Fallit sophisma primo, propter eas res, quarum usus in sufficientia quadam, sive competentia; hoc est, quantitate determinata, consistit. Si quis enim obligetur pœnaliter ad solutionem certæ pecuniæ summæ, ad diem certum; gravius ei fuerit, nummo unico aureo carere, quam si, posito quod ille unicus parari non potuerit, deessent etiam decem alii. Similiter in decoctionibus fortunarum, damnosior videtur gradus obæarationis, qui primus sortem minuit; quam extremus, qui ad egestatem redigit. Huc spectant formulæ illæ usitatæ: Sera in fundo parsimonia: Parum interest, utrum nihil habeas, an quod nihil juvet, etc. Fallit secundo, propter illud principium in natura, quod corruptio unius sit generatio alterius. Adeo ut gradus ipse privationis ultimæ, minus interdum incommodet, quoniam ansam et stimulum præbet novæ alicui rationi ineundæ. Unde etiam Demosthenes sæpius conqueritur apud cives suos: " Conditiones minus utiles, et honorificas, quas a Philippo impositas subibant, nihil aliud esse, quam alimenta quædam ipsorum ignaviæ et socordiæ: ut multo iis fuisset satius illis omnino carere, propterea quod hoc pacto industria illorum melius acui possit ad alia paranda remedia.' Novimus certe medicum quendam, qui, mulieribus delicatis, querentibus se male habere, sed tamen a medicamentis omnibus abhorrere, solebat dicere, non minus facete, quam morose: " Vobis omnino opus est, ut deterius valeatis, quo medicamenta, etiam quælibet, libenter toleretis." Quinetiam ipse gradus privationis, sive indigentiæ ultimæ, salutaris esse possit, non tantum ad excitandam industriam, verum etiam ad imperandam patientiam.

Quod ad secundum membrum hujus sophismatis, illud eodem, quo prius, fundamento (de gradibus quidditatis et nullitatis) nititur. Hinc tanta usurpantur, de initiis negotiorum, præconia:

" Dimidium facti, qui bene cœpit, habet, etc."

Hinc astrologorum superstitio, qui judicium faciunt de dispositione aut fortuna hominis, ex momento sive articulo nativitatis aut conceptus.

ELENCHUS.

Fallit sophisma primo, quoniam in nonnullis primæ rerum inceptiones nihil aliud sunt, quam quæ Epicurus, in philosophia sua, appellat tentamenta; id est, rudimenta quædam, quæ nihili sunt, nisi iterentur aut provehantur. Itaque in hoc casu, gradus secundus dignior videtur et potentior, quam primus: quemadmodum in planstris, equus qui penultimus est, plus confert ad motum plaustri, quam primus. Etiam non inepte dici solet: Convicium regestum, illud esse, quod pugnæ sit reum. Prius enim fortasse prætervolaturum fuisset. Itaque prius malo principium dedit, sed posterius modum abstulit. Fallit sophisma secundo, propter dignitatem perseverantiæ; quæ in progressu, non in aggressu, sita est. Etenim casus, aut natura, primum impetum progignere possunt; at affectus tantummodo maturus et judicium, constantiam. Fallit tertio in iis rebus, quarum natura et cursus ordinarius in contrarium rei inceptæ fertur. Ita ut prima inceptio perpetuo evacuetur, nisi vires continuentur. Quemadmodum in formulis illis usitatis dicitur; Non progredi, est regredi: et, Qui non proficit, deficit: ut in cursu in adversum montis; remigatione in adversum gurgitis: at contra, si in declivi montis motus incipiat; aut secundo flumine remigatio fiat; tum gradus inceptus longe potiores partes tenet. Porro iste color, non tantum extenditur ad gradum inceptionis, qui sit a potentia ad actum, comparatum cum gradu, qui sit ab actu ad incrementum: verum etiam ad gradum, qui sit ab impotentia ad potentiam, comparatum cum gradu, qui sit a potentia ad actum. Etenim gradus ab impotentia ad potentiam, major videtur, quam a potentia ad actum.

SOPHISMA X.

" Quod ad veritatem refertur, majus est, quam quod ad opinionem. Modus autem, et probatio ejus, quod ad opinionem pertinet, hæc est; quod quis, si clam putaret fore, facturus non esset."

Ita pronunciant Epicurei de felicitate Stoicorum, in virtute collocata, quod similis sit felicitati histrionis in scena; qui, si a spectoribus et plausu eorum destitueretur, animis statim concideret. Itaque virtutem, per ignominiam, bonum theatrale vocant. Aliter fit in divitiis; de quibus ille:

" Populus me sibilat; at mihi plaudo."

Itidem in voluptate:

" Grata sub imo
Gaudia corde premens, vultu simulante pudorem."

ELENCHUS.

Fallacia hujus sophismatis subtilior paulo est; licet responsio ad exemplum, quod adducitur, facilis. Neque enim virtus eligitur propter auram popularem. Cum etiam illud præceptum sit, Ut quis maxime omnium seipsum revereatur. Ita ut vir bonus idem fuerit in solitudine, idem in theatro. Licet forte intendatur virtus nonnihil per laudes, quemadmodum calor augetur per reflexionem. Sed hoc suppositionem negat, non fallaciam redarguit. Elenchus vero talis est. Dato, quod virtus (præsertim ea, quæ labores et conflictus subit) non eligeretur, nisi quod laudes et fama eam comitari soleant; haud inde sequitur, quod appetitus et motus ad virtutem non sit præcipue propter se. Siquidem fama possit esse causa tantum impulsiva, aut sine qua non; neutiquam efficiens, aut constituens. Exempli gratia: Si duo fuerint equi, quorum unus, calcaribus non admotis, quævis haud segniter præstaret; at alter, calcaribus admotis, priorem longe superaret: posterior iste (arbitror) palmam referet, et pro equo meliore judicabitur. Neque quenquam judicii sani commoverit formula illa: Apage istum equum, cujus spiritus siti sunt in calcaribus. Quandoquidem enim instrumentum ordinarium equitanti sit calcar, neque ullo modo oneri aut impedimento ei sit; non minoris propterea æstimandus est equus, qui calcare incitatur: neque etiam ille alter, qui absque calcaribus mira præstet, eo ipso melior, sed delicatior tantum habendus est. Simili ratione, gloria et honor, virtuti, pro stimulis et calcaribus, subserviunt: ac licet

virtus, sine illis, paulo futura esset languidior; tamen cum semper illa præsto sint ei, etiam non invitata; nil officit, quo minus virtus propter se quoque expetatur. Itaque recte redarguitur illa positio: Nota ejus rei, quod propter opinionem, et non propter veritatem eligitur, hæc est; quod quis, si clam putaret fore, facturus non fuisset.

SOPHISMA XI.

"Quod opera et virtute nostra partum est, majus bonum; quod ab alieno beneficio, vel ab indulgentia fortunæ delatum est, minus bonum."

Causæ hujus rei hæ sunt. Primo propter spem de futuro. Siquidem in aliorum gratia, aut fortunæ ipsius ventis secundis, non multum inest certitudinis; propria vero industria aut virtus semper domi adsunt. Adeo ut, postquam boni quid nobis hoc modo paratum fuerit, maneant etiam eadem instrumenta in novos usus parata, quin et consuetudine et successu reddita validiora. Secundo, quia quod alieno beneficio adipiscimur, ejus etiam aliis debitores sumus: cum quæ per nos ipsi comparaverimus, nihil oneris secum trahant. Etiam si quid indulgentia divina in nos cumulaverit, retributionem quandam erga Dei bonitatem efflagitat, quod homines pravos et improbos mordet, ubi in priore genere illud prophetæ usuvenerit, lætantur, et exultant, "immolant plagis suis, et sacrificant reti suo." Tertio, quia ea, quæ a virtute nostra minime profecta sunt, nulla sequitur laus et existimatio. Quæ enim felicitatis sunt, admirationem quandam pariunt, laudem minime. Sicut ait Cicero ad Cæsarem: Quæ miremur habemus; quæ laudemus expectamus. Quarto, quia quæ industria propria acquiruntur, cum laboribus et contentione fere conjuncta sunt; quod nonnullam habet in se suavitatem: uti Salomon, "suavis cibus a venatu."

ELENCHUS.

At quatuor inveniuntur colores oppositi, qui rem in contrariam partem inclinant, possintque esse prioribus instar elenchorum. Primo, quia felicitas videtur esse signum quoddam, et character favoris divini: et propterea tum in nobismetipsis confidentiam et alacritatem generat, tum apud alios auctoritatem et reverentiam. Felicitas autem ista etiam fortuita complectitur, ad quæ virtus ægre aspirat; veluti cum Cæsar ad navis gubernatorem, animos addendo, dixit: Cæsarem portas et fortunam ejus. Quod si dixisset, Cæsarem portas et virtutem ejus, frigidum prorsus fuisset solatium periclitanti in procella. Secundo, quia ea, quæ a virtute aut industria procedunt, sunt imitabilia, et aliis patent; cum felicitas sit res inimitabilis, et prærogativa quædam hominis individui. Itaque in genere videmus, res naturales artificialibus præponi, quia imitationem non recipiunt. Quod enim imitabile est, potentia volgatum est. Tertio, quæ ex felicitate proveniunt, bona videntur gratuita, nec laboribus empta: at quæ virtute propria pretio veluti acquisita. Itaque eleganter Plutarchus, de rebus Timoleontis, hominis longe fortunatissimi, eum rebus Agesilai et Epaminondæ, qui uno ævo vixerunt, comparatis, dixit: Illas Homeri carminibus fuisse similes, quæ eum alias excellant, sponte etiam fluere videantur et quasi genium sapere. Quarto, quia, quod præter spem, aut præter expectatum contingit, gratius et majore cum voluptate in hominum animos influit. Illud vero neutiquam competit iis, quæ propria cura et ambitu comparantur.

SOPHISMA XII.

"Quod ex pluribus constat et divisibilibus, est majus, quam quod ex paucioribus, et magis unum: nam omnia per partes considerata majora videntur: quare et pluralitas partium, magnitudinem præ se fert: fortius autem operatur pluralitas partium, si ordo absit: nam inducit similitudinem infiniti, et impedit comprehensionem."

Sophisma istud videtur etiam primo intuitu fallax, et quasi palpabile: siquidem, non pluralitas partium tantum, sed majoritas earundem, poterit constituere totum auctius. Attamen abripit hoc ipsum sophisma sæpius phantasiam; quinetiam insidiator sensui. Etenim aspectui ipsi brevior videtur via in planitie, ubi nihil interrumpat, quod visum frangat, quam in tali tractu terræ, ubi simul conspiciuntur arbores, aut ædificia, aut aliud aliquod signum, quod spatium metiri et dividere possit. Sic homini bene nummato, postquam arcas suas et marsupia diviserit et digesserit, major etiam, quam antea, subit divitiarum phantasia. Habet etiam vim in amplificationibus, si res in plures portiones dividatur, atque singulæ seorsum tractentur. Hoc vero adhuc magis phantasiam implet, si fiat promiscue et sine ordine. Confusio enim multitudinis opinionem generat. Siquidem quæ ordine ostenduntur aut proponuntur, tum ipsa magis finita apparent, tum certum præbent argumentum, nihil esse prætermissum. At contra, quæ confuse repræsentantur, non solum in se numerosa putantur, sed et suspicioni locum relinquunt, restare adhuc plura, quæ omittuntur.

ELENCHUS.

Fallit sophisma primo, ubi quis ampliorem præceperit de re aliqua opinionem, quam pro vera rei ipsius magnitudine. Etenim cum hoc fit, distributio falsam illam opinionem destruet, et rem in veritate sua, non autem cum amplificatione, monstrabit. Itaque si quis morbo aut dolore corripiatur, horæ longiores ei videbuntur, absque horologio aut clepsydra, quam si iisdem mensurentur. Nam si tædium et vexatio morbi, tempus videri longius faciunt, quam revera est, at computatio temporis errorem illum corrigit, et brevius facit, quam opinio illa falsa conceperat. Etiam in planitie contra, quam superius dictum est, aliquando evenit. Licet enim visus in principio viam ostentet breviorem sensui, quia indivisa est, tamen si ex eo obrepat opinio de longe minori intervallo, quam reperitur; opinionis ejus vanæ frustratio efficiet, ut videatur demum etiam, quam revera est, productior. Itaque si quis opinioni alicujus falsæ de magnitudine rei cujuspiam velificari copiat, caveat a distributionibus, sed rem integram utique extollat. Fallit sophisma secundo, si distributio en distrahatur, non autem simul obversetur, aut uno aspectu visum feriat. Itaque si flores in horto aliquo in plures tomos distinguantur, majoris

quantitatis speciem præbebunt, quam si omnes in uno toro simul crescerent; modo toruli illi oculis simul subjiciantur; aliter enim unio distributioni distractæ prævalebit. Sic reditus eorum majores videntur, quibus prædia et latifundia sua vicina aut conjuncta sunt. Nam si sparsim sita sint, non veniunt tam facile sub aspectum. Fallit sophisma tertio, propter dignitatem unitatis supra multitudinem. Omnis enim compositio, indigentiæ in singulis signum est certissimum: ubi illud usu venit:

"Et quæ non prosunt singula, multa juvant."

Itaque Mariæ partes potiores; "Martha, Martha, attendis ad plurima, unum sufficit." Hinc illa fabula Æsopi de vulpe et feli. Jactabat enim vulpes, quantas artes haberet et effugia, quibus se a canibus criperet; felis autem se unico tantum confidere auxilio dixit, utpote quæ tenuem scandendi facultatem haberet. Quod tamen reliquis illis vulpinis longe præstantius præsidium fuit: unde adagium; "Multa novit vulpes, sed felis unum magnum." Quin etiam in hujus fabulæ significatione morali idem cernitur: nam potenti et fido amico niti, plus præsidii habet, quam artes et astutiæ complurimæ.

Atque hæc exempli loco sufficient. Superest autem nobis ejusmodi colorum numerus etiam magnus, quos olim adolescentes congessimus: attamen sine illustrationibus suis, atque elenchis; quos hoc tempore concinnare non vacat: ideoque colores illos nudos, absque illustrationibus suis (cum superiores isti vestiti prodeant) proponere, minime nobis consentaneum videtur. Illud interim monemus, rem istam, qualiscunque ea videri possit, haud parvi, judicio nostro, esse pretii: utpote quæ ex philosophia prima, et ex politica, et ex rhetorica participet. Atque de signis popularibus, sive coloribus boni ac mali apparentis, tam simplicis quam comparati, hactenus.

Secunda collectio, quæ pertinet ad promptuariam, et desideratur, ea est, quam Cicero (ut superius in logica diximus) innuit; cum præcipit, ut in promptu habeantur loci communes in utramque partem disputati et tractati. Quales sunt, "Pro verbis legis," et "pro sententia legis," etc. Nos vero hoc præceptum etiam ad alia extendimus; ut non solum ad genus judiciale, sed etiam ad deliberativum et demonstrativum adhibeatur. Omnino hoc volumus, locos omnes, quorum frequens est usus (sive ad probationes et refutationes, sive ad suasiones et dissuasiones, sive ad laudes et vituperia spectent) meditatos jam haberi, eosque ultimis ingenii viribus, et tanquam improbe, et prorsus præter veritatem, attolli, et deprimi. Modum autem hujus collectionis, tam ad usum, quam ad brevitatem, optimum fore censemus, si hujusmodi loci contrahantur in sententias quasdam acutas et concisas; tanquam glomos quosdam, quorum fila in fusiorem discursum, cum res postulat, explicari possint. Atque similem quandam diligentiam in Seneca reperimus, sed in hypothesibus sive casibus. Ejus generis, cum plurima parata habeamus, aliqua ad exemplum proponere visum est. Ea autem antitheta rerum nominamus.

EXEMPLA ANTITHETORUM.

I.

NOBILITAS.

PRO.	CONTRA.
Quibus virtus a gencre penitus insita est; ii jam non mali esse nolunt, sed nequeunt.	Raro ex virtute nobilitas; rarius ex nobilitate virtus.
Nobilitas laurea, qua tempus homines coronat.	Nobiles majorum deprecatione ad veniam sæpius utuntur, quam suffragatione ad honores.
Antiquitatem etiam in monumentis mortuis veneramur; quanta magis in vivis?	Tanta solet esse industria hominum novorum, ut nobiles præ illis tanquam statuæ videantur.
Si nobilitatem familiarum contemnas, quæ tandem erit differentia inter sobolem hominum et brutorum?	Nobiles in studio respectant nimis sæpe: quod mali cursoris est.
Nobilitas virtutem invidiæ subducit, gratiæ tradit.	

II.

FORMA.

PRO.	CONTRA.
Deformes naturam ulcisci solent.	Virtus, ut gemma nobilis, melius inseritur sine multo auro et ornatu.
Et virtus nil aliud, quam interna forma; et forma nil aliud, quam externa virtus.	Quod vestis lauta deformi, hoc forma improbo.
Deformes se a contemptu, per malitiam utique suam, vindicare cupiunt.	Similiter plerunque leves sunt, quos forma ornat, et quos movet.
Forma virtutes splendere facit, vitia ruberc.	

III.

JUVENTUS.

PRO.	CONTRA.
Primæ cogitationes et juvenum consilia, plus habent e Numine.	Juventus pœnitentiæ campus.
Senes sibi sapiunt magis; aliis et reipublicæ minus.	Ingenitus est juvenibus senilis auctoritatis contemptus; ut quisque suo periculo sapiat.
Si conspici darctur, magis deformat animos, quam corpora, senectus.	Tempus, ad quæ consilia non advocatur, nec rata habet.
Senes omnia metuunt, præter Deos.	Senibus Veneres mutantur in Gratias.

IV.

VALETUDO.

PRO.	CONTRA.
Cura valetudinis animum humilem facit, et corpori supplicem.	Sæpe convalescere, est sæpe juvenescere.
	Excusatio valetudinis

PRO.

Corpus sanum, hospes animæ est; ægrum, ergastularius.

Nil tam summas actionum promovet, quam prospera valetudo; at contra, infirma feriatur nimis.

CONTRA.

polychresta; ad quam etiam sani confugimus.

Nimis arcto fœdere corpus animæ jungit sanitas.

Et lectus magna imperia administravit, et lectica magnos exercitus.

V

UXOR ET LIBERI.

PRO.

Charitas reipublicæ incipit a familia.

Uxor et liberi disciplina quædam humanitatis; at cœlibes tetrici et severi.

Cœlibatus et orbitas ad nil aliud conferunt, quam ad fugam.

Morti sacrificat, qui liberos non procreat.

Cætera felices, in liberis fere infortunati sunt; nc divinæ sorti nimium appropinquent homines.

CONTRA.

Qui uxorem duxit, et liberos suscepit, obsides fortunæ dedit.

Generare, et liberi, humana sunt; creare, et opera, divina.

Brutorum æternitas sobolcs; virorum fama, merita, et instituta.

Œconomicæ rationes publicas plerunque evertunt.

Aliquibus fortuna Priami placuit, qui suis omnibus superstes fuit.

VI.

DIVITIÆ.

PRO.

Divitias contemnunt, qui desperant.

Invidia divitiarum, virtutem effecit deam.

Dum philosophi dubitant, utrum ad virtutem an voluptatem omnia sint referenda, collige instrumenta utrinsque.

Virtus per divitias vertitur in commune bonum.

Cætera bona provincialem habent administrationem, divitiæ solæ generalem.

CONTRA.

Divitiarum magnarum vel custodia est, vel dispensatio quædam, vel fama; at nullus usus.

Annon vides lapillis, et id genus deliciis, fingi pretia, ut possit esse aliquis magnarum divitiarum usus?

Multi, dum divitiis suis omnia venalia fore crediderunt, ipsi in primis venierunt.

Non alind divitias dixerim, quam impedimenta virtutis: nam virtuti et necessariæ sunt et graves.

Divitiæ bona ancilla, pessima domina.

VII.

HONORES.

PRO.

Honores non tyrannorum (ut loquuntur) sed providentiæ divinæ calculi sunt.

Honores faciunt et virtutes et vitia conspicua; itaque illas provocant, hæc refrænant.

Non novit quispiam, quantum in virtutis cursu profecerit; nisi honores ei campum præbeant apertum.

Virtutis, ut rerum aliarum, rapidus motus est ad locum, placidus in loco: est autem virtutis locus honos.

CONTRA.

est nolle, proxima non posse.

Honorum ascensus arduus, statio lubrica, regressus præceps.

Qui in honore sunt, vulgi opinionem mutuentur oportet, ut seipsos beatos putent.

VIII.

IMPERIA.

PRO.

Felicitate frui, magnum bonum est; sed eam et aliis impertiri posse, adhuc majus.

Reges non hominum instar, sed astrorum sunt: nam et in singulos, et in tempora ipsa, magnum habent influxum.

Qui Dei vices gerunt, iis resistere, non tantum læsæ majestatis crimen est, sed theomachia quædam.

CONTRA.

Quam miscrum, habere nil fere, quod appetas; infinita, quæ metuas?

Qui in imperiis sunt, similes sunt corporibus cœlestibus, quæ magnam venerationem habent, requiem nullam.

Nemo humanæ sortis ad deorum convivia admittitur, nisi ad ludibrium.

IX.

LAUS, EXISTIMATIO.

PRO.

Virtutis radii reflexi laudes.

Laus honor is est, ad quem liberis suffragiis pervenitur.

Honores a diversis politiis conferuntur, sed laudes ubique sunt libertatis.

Vox populi habet aliquid divinum: nam quomodo aliter tot capita in unum conspirare possint?

Ne mireris, si vulgus verius loquatur, quam honoratiores; quia etiam tutius loquitur.

CONTRA.

Fama deterior judex, quam nuncia.

Quid viro bono cum saliva vulgi?

Fama veluti fluvius, levia attollit, solida mergit.

Infimarum virtutum apud vulgus laus est, mediarum admiratio, supremarum sensus nullus.

Laus magis ex ostentatione, quam ex merito; et ventosis magis accedit, quam realibus.

X.

NATURA.

PRO.

Consuetudinis progressus est arithmeticus, naturæ geometricus.

CONTRA.

Cogitamus secundum naturam; loquimur secundum præcepta; sed

PRO.

Ut in rebuspublicis se habent leges communes erga consuetudines, eodem modo in singulis se habet natura ad consuetudinem.

Consuetudo contra naturam, quasi tyrannis quædam est: et cito, ac levi occasione corruit.

CONTRA.

agimus secundum consuetudinem.

Natura pedantius quidam est, consuetudo magistratus.

XI.

FORTUNA.

PRO.

Virtutes apertæ laudes pariunt, occultæ fortunas.

Virtutes officiorum laudes parinnt, facultatum fortunas.

Fortuna veluti galaxia; hoc est, nodus quarundam obscurarum virtutum, sine nomine.

Fortuna saltem ob filias suas honoranda est, confidentiam scilicet, et auctoritatem.

CONTRA.

Stultitia unius, fortuna alterius.

In fortuna illud præcipue laudaverim, quod eum non eligat, non tueatur.

Viri magni, dum invidiam virtutum suarum declinarunt, inter fortunæ cultores reperti sunt.

XII.

VITA.

PRO.

Absurdum est accidentia vitæ magis amare, quam vitam ipsam.

Præstat ad omnia, etiam ad virtutem, curriculum lungum, quam breve.

Absque spatiis vitæ majoribus, nec perficere datur, nec perdicere, nec pœnitere.

CONTRA.

Philosophi dum tantum apparatum adversus mortem colligunt, ipsam magis timendam effecerunt.

Mortem homines timent, quia nesciunt, ut pueri, tenebras.

Non invenies inter humanos affectum tam pusillum, qui, si intendatur paulo vehementius, non mortis metum superet.

Mori velle, non tantum fortis, aut miser, aut prudens, sed etiam fastidiosus potest.

XIII.

SUPERSTITIO.

PRO.

Qui zelo peccant, non probandi, sed tamen amandi sunt.

Mediocritates moralibus debentur, extremitates divinis.

Superstitiosus, religiosus designatus.

CONTRA.

Ut simiæ, similitudo eum homine, deformitatem addit: ita superstitioni, similitudo eum religione.

Quale odium est affectationis in civilibus, tale superstitionis in divinis.

PRO.

Fabulosissima quæque portenta cujusvis religionis citius crediderim, quam hæc omnia sine Numine fieri.

CONTRA.

Præstat nullam habere de diis opinionem, quam contumeliosam.

Non Epicuri schola, sed Stoa, veteris respublicas perturbavit.

Non cadit in mentem humanam, ut sit merus atheista dogmate; sed magni hypocritæ, sunt veri atheistæ; qui sacra perpetuo contrectant, sed nunquam verentur.

XIV.

SUPERBIA.

PRO.

Superbia etiam vitiis insociabilis; atque ut venenum veneno, ita haud pauca vitia superbia expelluntur.

Facilis, etiam alienis vitiis obnoxius est: superbus, tantum suis.

Superbia, si ab aliorum contemptu, ad sui contemptum ascendet, fiet demum philosophia.

CONTRA.

Hedera virtutum ac bonorum omnium superbia.

Cætera vitia virtutibus tantum contraria; superbia sola contagiosa.

Superbia optima vitiorum conditione esset, id est, latebris.

Superbos, cum cæteros contemnit, se interim negligit.

XV.

INGRATITUDO.

PRO.

Crimen ingrati animi nil aliud est, quam perspicacia quædam in causam beneficii collati.

Dum grati erga quosdam esse volumus; nec cæteris justitiam præstamus, nec nobis ipsis libertatem.

Beneficii gratia eo minus reddenda est, quod de pretio non constat.

CONTRA.

Crimen ingrati animi, non supplicüis coërcetur, sed furiis permittitur.

Arctiora sunt vincula beneficiorum, quam officiorum: quare qui ingratus, etiam injustus, et omnia.

Ea est conditio humana: nemo tam publica fortuna natus est, quin privatæ et gratiæ, et vindictæ, se omnino debeat.

XVI.

INVIDIA.

PRO.

Naturale est exprobrationem fortunæ suæ odisse.

Invidia in rebuspublicis, tanquam salubris ostracismus.

CONTRA.

Invidia festos dies non agit.

Nemo virtuti invidiam reconciliaverit præter mortem.

Invidia virtutes laboribus exercet, ut Juno Herculem.

XVII.

IMPUDICITIA.

PRO.

Zelotypiæ debetur, quod castitas sit facta virtus.

Multa tristitia opus est, ut quis venerem rem seriam putet.

Quid vel diætæ partem, vel munditiæ speciem, vel superbiæ filiam, inter virtutes collocas?

Amorum, ut avium sylvestrium, nulla proprietas est, sed jus possessionc transfertur.

CONTRA.

Pessima Circes transformatio impudicitia.

Impudicus prorsus reverentiam sui perdidit; quod frænum est omnium vitiorum.

Omnes, ut Paris, qui formæ optionem faciunt, prudentiæ et potentiæ jacturam faciunt.

In veritatem non vulgarem incidit Alexander; cum somnum et venerem, mortis arrhabones esse dixit.

XVIII.

CRUDELITAS.

PRO.

Nulla virtutum tam sæpe rea est, quam clementia.

Crudelitas, si a vindicta est, justicia est; si a periculo, prudentia.

Qui misericordiam inimico impertit, sibi denegat.

Non sæpius phlebotomiæ necessariæ sunt in curationibus, quam cædes in civilibus.

CONTRA.

Cædibus grassari, aut feræ, aut furiæ est.

Crudelitas viro bono semper fabulosa esse videtur, et fictio tragica.

XIX.

GLORIA VANA.

PRO.

Qui suas laudes appetit, aliorum simul appetit utilitates.

Qui tam sobrius est, ut nihil alienum curet, vereor ne et publica aliena putet.

Ingenia, in quibus aliquid inane est, facilius curam reipublicæ recipiunt.

CONTRA.

Gloriosi semper factiosi, mendaces, mobiles, nimii.

Thraso Gnathonis præda.

Turpe est proco solicitare ancillam; est autem virtutis ancilla laus.

XX.

JUSTITIA.

PRO.

Imperia et politiæ, justitiæ tantum additamenta sunt; si enim justitia aliter possit exerceri, illis minime fuerit opus.

Justitiæ debetur, quod homo homini sit Deus, non lupus.

CONTRA.

Si hoc est justum esse; Quæ tibi fieri nolis, ea alteri non facere, clementia demum justitia est.

Si suum cuique tribuendum est, certe et venia humanitati.

PRO.

Justitia etsi vitia tollere non possit, tamen hoc efficit, ut non lædant.

CONTRA.

Quid mihi æquitatem narras, cum sapienti omnia inæqualia sint?

Considera qualis reorum conditio fuerit apud Romanos, et pronuncia justitiam e republica non esse.

Vulgaris ista justitia politiarum, philosophus in aula; hoc est, facit tantum ad reverentiam imperantium.

XXI.

FORTITUDO.

PRO.

Nil terribile nisi ipse timor.

Nil aut in voluptate solidum, aut in virtute munitum, ubi timor infestat.

Qui pericula apertis oculis intuetur, ut excipiat, advertit et ut evitet.

Cæteræ virtutes nos a dominatu liberant vitiorum; fortitudo sola a dominatu fortunæ.

CONTRA.

Præclara virtus velle perire ut perdas.

Præclara virtus quam etiam ebrietas inducit.

Vitæ suæ prodigus, alienæ periculosus.

Virtus ferreæ ætatis fortitudo.

XXII.

TEMPERANTIA.

PRO.

Eadem fere vis abstinendi et sustinendi.

Uniformitates, concordiæ, et mensuræ motuum, cœlestia sunt, et characteres æternitatis.

Temperantia, velut frigora salubria, animi vires colligit et firmat.

Exquisiti et vagi sensus narcoticis indigent; similiter et affectus.

CONTRA.

Negativæ istæ virtutes non placent; nam innocentiam præstant, non merita.

Languet mens, quæ excessibus caret.

Amo virtutes, quæ excellentiam actionis inducunt, non hebetudinem passionis.

Cum consonantes animi motus ponis, paucos ponis; nam pauperis est numerare pecus.

Ista (Non uti, ut non appetas; Non appetere, ut non timeas) pusillanimi sunt et diffidentis.

XXIII.

CONSTANTIA.

PRO.

Basis virtutum constantia.

Miser est, qui qualis ipse futurus sit, non novit.

CONTRA.

Constantia, ut janitrix morosa, multa utilia indicia abigit.

Æquum est, ut con-

PRO.

Imbecillitas humani judicii, rebus ipsis constare non potest; quare saltem sibi constet.

Etiam vitiis decus aspirat constantia.

Si ad fortunæ inconstantiam accedat etiam inconstantia mentis, in quantis tenebris vivitur?

Fortuna, tanquam Proteus, si perseveres, ad formam redit.

CONTRA.

stantia res adversas bene toleret; nam fere inducit.

Stultitia brevissima optima.

XXIV.

MAGNANIMITAS.

PRO.

Si animus semel generosos fines optaverit; statim non modo virtutes circumstant, sed et Numina.

Virtutes ex habitu, aut præceptis, gregales sunt; ex fine, heroicæ.

CONTRA.

Magnanimitas est virtus poëtica.

XXV.

SCIENTIA, CONTEMPLATIO.

PRO.

Ea demum voluptas est secundum naturam, cujus non est satietas.

Dulcissimus prospectus in errores aliorum subjacentes.

Quam bonum est orbes mentis habere concentricos universo?

Omnes affectus pravi, falsæ æstimationes sunt; atque eadem sunt bonitas et veritas.

CONTRA.

Contemplatio, speciosa inertia.

Bene cogitare, non multo melius est, quam bene somniare.

Orbem Numen curat, tu patriam.

Vir politicus etiam contemplationes serit.

XXVI.

LITERÆ.

PRO.

Si de rebus minutis, libri scripti forent, vix ullus esset experientiæ usus.

Lectio est conversatio cum prudentibus; actio fere cum stultis.

Non inutiles scientiæ existimandæ sunt, quarum in se nullus est usus, si ingenia acuant, et ordinent.

CONTRA.

In academiis discunt credere.

Quæ unquam ars docuit tempestivum artis usum?

Sapere ex regula, et ex experientia, plane contrariæ rationes sunt; ut qui alteri assuefactus sit, ad alterum sit ineptus.

Artis sæpissimæ ineptus usus est, ne sit nullus.

Hoc fere omnes academici habent, ut ex qualibet re soleant agnoscere quod sciant, et non addiscere quod nesciant.

XXVII.

PROMPTITUDO.

PRO.

Opportuna prudentia non est, quæ celeris non est.

Qui cito errat, cito errorem emendat.

Qui ex composito, et non obiter prudens est, nil magni facit.

CONTRA.

Prudentia non alte petitur, quæ præsto est.

Prudentia, ut vestis, levis, quæ expedita.

Cujus consilia non maturat deliberatio, nec prudentiam ætas.

Quæ ad breve tempus excogitantur, ad breve tempus placent.

XXVIII.

TACITURNITAS IN SECRETIS.

PRO.

Taciturno nil reticetur, quia omnia tuto communicantur.

Qui facile loquitur quæ scit, loquitur et quæ nescit.

Secretis etiam mysteria debentur.

CONTRA.

Varietas morum optime animum collocat in secreto.

Taciturnitas confessoris virtus.

Taciturno omnia reticentur, quia silentium rependitur.

Teetus, ignoto proximus.

XXIX.

FACILITAS.

PRO.

Amo virum alieno affectui obnoxium, sed tamen judicium ab obsequio revocantem.

Flexibilem esse, ad naturam auri proxime accedit.

CONTRA.

Facilitas, judicii quædam inepta privatio.

Facilium beneficia, debita videntur; negationes, injuriæ.

Sibi gratiam habet, qui a facili aliquid impetrat.

Facilem omnes difficultates premunt; nam omnibus se implicat.

Facilis fere se recipit cum pudore.

XXX.

POPULARITAS.

PRO.

Prudentibus eadem fere placent, at stultorum varietati occurrere prudentiæ est.

Colere populum, est ceci.

Qui ipsi magni viri sunt, neminem unum fere habent, quem verentur, sed populum.

CONTRA.

Qui valde cum stultus congruit, ipse suspectus esse potest.

Qui turbæ placet, fere et turbas miscet.

Nil moderatum vulgo gratum est.

Infima assentatio est assentatio vulgi.

XXXI.

LOQUACITAS.

PRO.	CONTRA.
Qui silet, aut alios habet pro suspectis, aut suspectus est ipse sibi.	Silentium verbis, et gratiam addit, et auctoritatem.
Custodiæ omnes infelices; miserrima silentii.	Silentium, veluti somnus quidam, alit prudentiam.
Silentium stultorum virtus: itaque recte ille silenti: Si prudens es, stultus es; si stultus, prudens.	Silentium fermentatio cogitationum.
Silentium, veluti nox, insidiis opportunum.	Stylus prudentiæ silentium.
Cogitationes in profluente sanissimæ.	Silentium ambit veritatem.
Silentium, solitudinis genus.	
Opinioni se venditat, qui silet.	
Silentium nec pravas cogitationes egerit, nec bonas distribuit.	

XXXII.

DISSIMULATIO.

PRO.	CONTRA.
Dissimulatio, compendiaria sapientia.	Cum cogitare secundum rerum veritatem non possimus, at loquamur secundum cogitationem.
Non idem dicere, sed idem spectare debemus.	Quibus artes civiles supra captum ingenii sunt, iis dissimulatio pro prudentia erit.
Etiam in animo deformis nuditas.	Qui dissimulat, præcipuo ad agendum instrumento se privat, i. e. fide.
Dissimulatio et decori est, et præsidio.	Dissimulatio dissimulationem invitat.
Sepes consiliorum, dissimulatio.	Qui dissimulat, liber non est.
Aliqui bono suo falluntur.	
Qui indissimulanter omnia agit, æque decipit; nam plurimi, aut non capiunt, aut non credunt.	
Indissimulatio nihil aliud, quam animi impotentia.	

XXXIII.

AUDACIA.

PRO.	CONTRA.
Docet improbare, qui verecundatur.	Audacia stultitiæ viator.
Quod actio oratori, id audacia viro civili; primum, secundum, tertium.	Inverecundia inutilis, nisi ad imposturam.
Confitentem verecundiam amo, accusantem odi.	Confidentia, stultorum imperatrix, prudentium scurra.
Confidentia morum animos promptius sociat.	Audacia est stupor quidam sensus, cum malitia voluntatis.
Placet obscurus vultus, et perspicua oratio.	

XXXIV.

CEREMONIÆ, PUNCTOS, AFFECTATIO.

PRO.	CONTRA.
Vultus et gestus decora moderatio, verum condimentum virtutis.	Quid deformius, quam scenam in vitam transferre?
Si et in verbis vulgo paremus, quidni in habitu, et gestu?	Ex ingenuitate decorum, ex arte odium.
Qui in levibus, et quotidiana consuetudine, decus non retinent, sit licet vir magnus, noris tamen hunc tantum certis horis sapere.	Magis placent cerussatæ buccæ, et calamistrata coma, quam cerussati et calamistrati mores.
Virtus et prudentia sine punctis, velut peregrinæ linguæ sunt; nam vulgo non intelliguntur.	Qui animum ad tam exiles observationes applicat, magnæ cogitationis capax non est.
Qui vulgi sensum per congruitatem non novit, is, si nec per observationem noverit, omnium stultissimus est.	Affectatio ingenuitatis, putredo lucens.
Puncti translatio sunt virtutis in linguam vernaculam.	

XXXV.

JOCI.

PRO.	CONTRA.
Oratorum ara jocus.	Istos deformitatum ac concinnitatum auenpes quis non contemnat?
Qui in omnibus modestum leporem miscet, libertatem animi retinet.	Rerum magnitudinem eluere joco, improbum artificium est.
Res est supra opinionem politica, facile transire a joco ad serium, a serio ad jocum.	Jocos tum considera, cum risu destituti sunt.
Veritatis, alias non perventuræ, sæpe vehiculum jocus.	Faceti isti fere non penetrant ultra superficiem rerum, ubi joci sedes est.
	Ubi jocus ad seria momenti aliquid habet, ibi levitas puerilis est.

XXXVI.

AMOR.

PRO.	CONTRA.
Annon vides, omnes se quærere? at amans solus se invenit.	Amori multum debet scena, nihil vita.
Non est melior ordinatio animi, quam ex imperio affectus alicujus insignis.	Nil tam varii nominis est, quam amor: nam res, aut tam stulta est, ut se nesciat, aut tam turpis, ut se fuco condat.
Qui sapit, desiderium quærat; nam qui non aliquid insigniter appetit, ei omnia ingrata sunt, et tædio plena.	Odi istos monophrontistas.
Quidni in unitate acquiescat unus?	Angusta admodum contemplatio amor.

XXXVII.

AMICITIA.

PRO.

Eadem facit amicitia, quæ fortitudo, sed suavius.

Suave condimentum omnium bonorum amicitia.

Pessima solitudo, non veras habere amicitias.

Digna malæ fidei ultio amicitiis privari.

CONTRA.

Qui amicitias arctas copulat, novas necessitates sibi imponit.

Animi imbecilli est, partiri fortunam.

XXXVIII.

ADULATIO.

PRO.

Adulatio magis ex more, quam ex malitia.

Laudando instituere, semper formula fuit debita potentioribus.

CONTRA.

Adulatio stylus servorum.

Adulatio calx vitiorum.

Adulatio aucupii illud genus, quod similitudine vocis aves fallit.

Adulationis deformitas comica, nocumentum tragicum.

Auribus mederi difficillimum.

XXXIX.

VINDICTA.

PRO.

Vindicta privata, justitia agrestis.

Qui vim rependit, legem tantum violat, non hominem.

Utilis metus ultionis privatæ; nam leges nimium sæpe dormiunt.

CONTRA.

Qui injuriam fecit, principium malo dedit; qui reddidet, modum abstulit.

Vindicta, quo magis naturalis, eo magis coërcenda.

Qui facile injuriam reddit, is fortasse tempore, non voluntate posterior erat.

XL.

INNOVATIO.

PRO.

Omnis medicina innovatio.

Qui nova remedia fugit, nova mala operitur.

Novator maximus tempus: quidni igitur tempus imitemur?

Exempla remota inepta sunt; recentia corrupta et ambitiosa.

Imperitis et contentiosis permitte, ut ad exempla res agant.

Sicut qui nobilitatem in familiam introducunt, digniores fere sunt posteris; ita novationes rerum plerunque præstant iis, quæ ad exempla fiunt.

Morosa morum retentio, res turbulenta est, æque ac novitas.

Cum per se res mutentur in deterius, si consilio in melius non mutentur, quis finis erit mali?

Moris servi, temporis ludibria.

CONTRA.

Novi partus deformes sunt.

Nullus auctor placet, præter tempus.

Nulla novitas absque injuria; nam præsentia convellit.

Quæ usu obtinuere, si non bona, at saltem apta inter se sunt.

Quis novator tempus imitatur, quod novationes ita insinuat, ut sensus fallant?

Quod præter spem evenit, cui prodest, minus acceptum; cui obest, magis molestum.

XLI.

MORA.

PRO.

Fortuna multa festinanti vendit, quibus morantem donat.

Dum initia rerum amplecti properamus, umbras prensamus.

Fluctuantibus rebus advertendum, inclinantibus agendum.

Prima actionum Argo committenda sunt, extrema Briareo.

CONTRA.

Occasio primum ansam vasis porrigit, deinde ventrem.

Occasio instar Sibyllæ minuit oblatum, pretium auget.

Celeritas, Orci galea.

Quæ mature fiunt, judicio fiunt; quæ sero, per ambitum.

XLII.

PRÆPARATIO.

PRO.

Qui parvis copiis rem magnam aggreditur, fingit opportunitatem, ut speret.

Parvis apparatibus non fortuna, sed prudentia emitur.

CONTRA.

Optimus terminus parandi, prima occasio agendi.

Nemo speret, se fortunam apparatu ligare posse.

Alteratio apparatus et actionis, politica sunt: distinctio tumida et infelix.

Magnus apparatus, prodigus et temporis et rerum.

XLIII.

PRINCIPIIS OBSTARE.

PRO.

Plura pericula fallunt, quam vincunt.

Minus operis est periculo remedium adhibere, quam progressum ejus observare et custodire.

CONTRA.

Docet periculum progredi, qui accingitur, et periculum figit remedio.

Etiam in remediis periculorum, levia pericula subsistunt.

PRO.	CONTRA.
Non jam leve est periculum, si leve videatur.	Præstat eum paucis remediis, quæ invaluerunt, rem habere; quam cum minis singulorum.

XLIV.

CONCILIA VIOLENTA.

PRO.	CONTRA.
Qui lenem istam prudentiam amplectuntur, iis augmenta mali salubria sunt.	Omne remedium violentum, prægnans novi mali.
Neeessitas, quæ violenta eonsulit, eadem exequitur.	Violenta consilia nemo dat, præter iram et metum.

XLV.

SUSPICIO.

PRO.	CONTRA.
Diffidentia, nervi prudentiæ; at suspicio medicamentum arthriticum.	Suspeio fidem absolvit.
Merito ejus fides suspecta est, quam suspicio labefaeit.	Suspicionum intemperies est mania quædam civilis.
Suspicio fragilem fidem solvit, fortem intendit.	

XLVI.

VERBA LEGIS.

PRO.	CONTRA.
Non est interpretatio, sed divinatio, quæ recedit a litera.	Ex omnibus verbis eliciendus est sensus, qui interpretetur singula.
Cum receditur a litera, judex transit in legislatorem.	Pessima tyrannis lex in equuleo.

XLVII.

PRO TESTIBUS CONTRA ARGUMENTA.

PRO.	CONTRA.
Secundum oratorem, non secundum causam pronunciat, qui argumentis nititur.	Si testibus credendum sit eontra argumenta, sufficit, tantum judicem esse non surdum.
Qui argumentis potius credit, quam testibus; etiam ingenio magis debet fidere, quam sensui.	Argumenta antidotum contra venena testimoniorum.
Tutum foret argumentis credere, si homines nihil absurdi facerent.	Iis probationibus tutissimo ereditur, quæ rarissime mentiuntur.
Argumenta, cum sint eontra testimonia, hoc præstant, ut res mira videatur, non autem ut vera.	

Atque hæc antitheta (quæ nune proposuimus) fortasse tanti non fuerint; sed cum jam olim parata et collecta a nobis essent, noluimus diligentia nostræ juvenilis fruetum perire: præsertim eum (si quis acutius introspiciat) semina sint, non flores. In illo autem adolescentiam plane spirant, quod sint in morali, sive demonstrativo genere, uberiora; in deliberativo, et judiciali, perpauca.

Tertia collectio, quæ pertinet ad promptuariam, atque etiam desideratur, est ea, quam vocare placet, formularum minorum. Illæ autem sunt, veluti vestibula, posticæ, ante-cameræ, re-cameræ, transitus, etc. orationis; quæ indiscriminatim omnibus subjectis competere possint. Quales sunt præfationes, conclusiones, digressiones, transitiones, promissiones, declinationes, et plurima ejusmodi. Quemadmodum enim in ædificiis, plurimum faeit et ad voluptatem et ad usum, ut frontispicia, gradus, ostia, fenestræ, aditus, transitus, et hujusmodi, commode distribuantur; eodem modo etiam in oratione fit, ut additamenta et interpositionis istæ (si decore et perite formentur et collocentur) plurimum tum gratiæ, tum commoditatis, universæ orationis strueturæ adjiciant. Harum formularum exemplum unum aut alterum proponemus, neque dintius iisdem immorabimur. Etsi enim sint res haud exigui usus, tamen cum nihil in his addamus de nostro, sed tantum formulas nudas, ex Demosthene, aut Cicerone, aut alio quopiam selecto auctore, describamus, inferius quiddam videntur, quam ut in eo tempus teramus.

EXEMPLA FORMULARUM MINORUM.

CONCLUSIO DELIBERATIVÆ.

" Sie et culpam præteritam fas crit redimere, et futuris incommodis eadem opera prospicere."

PARTITIONIS ACCURATÆ COROLLARIUM.

" Ut omnes intelligant, nihil me et subterfugere voluisse retieendo, aut obscurare dicendo."

TRANSITIO CUM MONITO.

" Verum hæc ita prætereamus, ut tamen intuentes et respeetantes, relinquamus."

PRÆOCCUPATIO CONTRA OPINIONEM INVETERATAM.

" Faciam, ut intelligatis in tota causa, quid res ipsa tulerit, quid error affinxerit, quid invidia conflaverit."

Hæc pauca enumerasse, ad exempla, satis fuerit; cum quibus, appendices rhetoricæ, quæ ad promptuariam spectant, concludimus.

CAPUT QUARTUM.

Appendices generales duæ traditivæ; critica, et pædagogica.

SUPERSUNT duæ appendiees traditivæ in genere; altera eritica, altera pædagogica. Sicut enim pars traditivæ præcipua in scriptione librorum consistit, ita pars ejus relativa in librorum versatur leetione: leetio autem, vel magistrorum ope regitur, vel industria cujusque propria perficitur; atque huic rei inserviunt doctrinæ illæ, quas diximus, duæ.

Ad criticam spectant, primo, auctorum probatorum limata correctio et emendata editio; quibus et ipsorum auctorum honor vindicatur, et studiosis lumen præfertur. Qua tamen in re studiis aut parum detrimenti intulit quorundam hominum diligentia temeraria. Criticis enim haud paucis mos est, ubi incidunt in quidpiam, quod non intelligunt, vitium statim in exemplari supponere. Veluti in illo loco Taciti: eum quædam colonia jus asyli apud senatum assereret, narrat Tacitus, non æquis admodum auribus, quæ ab iis proferebantur, fuisse ab imperatore et senatu audita: itaque legati, causa diffisi, bonam pecuniæ summam Tito Vinio dederunt, ut eis patrocinaretur. Hoc itaque pacto res obtinuit: "tum" (inquit Tacitus) "dignitas et antiquitas coloniæ valuit:" quasi argumenta, quæ antea levia videbantur, accedente pretio, novum tum pondus accepissent. At criticus quidam, non ex infimis, verbum "tum" expunxit, et "tantum" reposuit. Atque hac prava criticorum consuetudine factum est, ut (quod non nemo prudenter notavit) exemplaria maxime castigata sint sæpenumero minime omnium casta. Quinimo, ut verum dicamus, nisi critici fuerint eruditi in scientiis illis, de quibus libri ab ipsis editi tractant, periculo diligentia eorum non vacat.

Secundo ad criticam spectant, auctorum interpretatio et explicatio, commentarii, scholia, notæ, spicilegia, et similia. In istiusmodi autem laboribus, pessimus ille criticorum nonnullos quasi morbus invasit, ut multa ex obscurioribus transiliant, in satis vero perspicuis ad fastidium usque immorentur, et expatientur. Scilicet, non tam illud agitur, ut auctor ipse illustretur, quam ut criticus ille multiplicem suam eruditionem, et variam lectionem, ubique arrepta occasione, ostentet. Optandum imprimis foret (licet hæc res ad traditivam principalem, non ad appendices pertineat) ut qui argumenta obscuriora et nobiliora pertractet scriptor, suas ipse explicationes subjungat; ut et textus ipse digressionibus aut explicationibus non abrumpatur; et notæ a scriptoris mente non recedant. Cujusmodi quidpiam suspicamur de Theone Euclidis.

Tertio ad criticam spectat (quod etiam nomen eidem indidit) de auctoribus, quos edunt, breve aliquod judicium interponere; et illos cum cæteris scriptoribus, qui eadem tractant, comparare; ut per hujusmodi censuram studiosi et de librorum delectu moneantur, et ad ipsam lectionem eorum instructiores accedant. Atque hoc ultimum, est criticorum tanquam cathedra, quam certe nostra ætate nobilitarunt viri nonnulli magni, majores certe, nostro judicio, quam pro modulo criticorum.

Ad pædagogicam quod attinet, brevissimum foret dictu; Consule scholas Jesuitarum: nihil enim, quod in usum venit, his melius. Nos tamen pauca, more nostro, monebimus, tanquam spicas legentes. Omnino institutionem pueritiæ et juventutis collegiatam probamus; non in ædibus privatis; non sub ludimagistris tantum. Adest adolescentulis in collegiis æmulatio major erga æquales; adest quoque ipse vultus et aspectus virorum gravium, quod facit ad verecundiam, et teneros animos etiam a principio conformat ad exemplar: denique sunt quidem plurima educationis collegiatæ commoda. In ordine autem et modo disciplinæ, illud imprimis consulucrim; ut caveatur a compendiis; et a præcocitate quadam doctrinæ, quæ ingenia reddat audacula et, magnos profectus potius ostentet, quam faciat. Quin et favendum nonnihil ingeniorum libertati, ut si quis, quæ ex more disciplinæ sunt, faciat, et simul tempus ad alia, in quæ propensus est, suffuretur, ne utique cohibeatur. Porro operæ pretium fuerit, diligenter animadvertere (quod fortasse adhuc fuerit non notatum) esse duos assuefaciendi, et exercendi, et præparandi ingenia modos, eosque tanquam antistrophos. Alter incipit a facilioribus, et ad magis ardua paulatim deducit; alter ab initio duriora imperat et urget ut, iis obtentis, facilioribus quis etiam suaviter perfungi possit. Alia enim est methodus, incipere natare cum utribus, qui sublevent; alia, incipere saltare cum caleeis ponderosis, qui aggravent. Neque facile est dictu, quantum harum methodorum prudens intermixtio conferat ad promovendas, tam animi, quam corporis facultates. Item applicatio et delectus studiorum, pro natura ingeniorum, quæ erudiuntur, res est singularis et usus et judicii: quam etiam bene et vere notatam et perspectam magistri parentibus adolescentium debent; ut de genere vitæ, cui filios suos destinent, consulere possent. Verum et illud attentius paulo observandum, non tantum in iis ad quæ natura quisque sua fertur, longe maximos fieri profectus; sed etiam ad ea, ad quæ vitio naturæ quis maxime fuerit inhabilis, reperiri in studiis ad hoc proprie delectis remedia et curationes. Exempli gratia; si cuipiam ingenium tale sit, quale est avium, ut facile abripiatur, nec per moram (qualem oportet) intentum esse sustineat; remedium huic rei præbebunt mathematica, in quibus, si evagetur paulo mens, de integro renovanda est demonstratio. Etiam exercitiorum, in erudiendo, partes liquet esse vel maximas. At illud a paucis notatum est, quod exercitiorum debeat esse non solum prudens institutio, sed etiam prudens intermissio. Optime siquidem Cicero notavit, quod in exercitiis plerunque exerceri contingat, non minus vitia, quam facultates; adeo ut malus habitus quandoque simul acquiratur, et se insinuet cum bono. Itaque tutius est intermittere exercitia, et subinde repetere, quam assidue continuare et urgere. Verum de his satis. Sunt certe hæ res primo aspectu minus grandes et solennes, sed fructuosæ tamen et efficaces. Quemadmodum enim in plantis, ad felicitatem vel infelicitatem ipsarum, plurimum faciunt injuriæ, aut auxilia, quæ iisdem, cum teneræ fuissent, intervenerint: quemadmodum etiam incrementa illa immensa imperii Romani merito a quibusdam attribuuntur virtuti et prudentiæ sex illorum regum, qui eidem in pueritia sua veluti tutores fuerunt, aut nutritii: sic certe cultura et institutio annorum puerilium, aut teneriorum, eas habet vires, licet latentes, et minime in cujusvis observationem incurrentes, quas neque temporis diuturnitas, neque laborum assiduitas et contentio, postea, ætate maturiore, possint ullo modo æquiparare. Non abs re fuerit etiam notare, facultates vel mediocres, si in magnos viros aut res magnas inciderint, graves et insignes interdum producere effectus. Ejus rei ponemus exemplum memorabile; quod eo magis adducimus, quia Jesuitæ

eandem disciplinam non videntur aspernari, sano (ut nobis videtur) judicio. Atque est res, quæ, si sit professoria, in famis est; verum disciplinaria facta, ex optimis est. Intelligimus autem actionem theatralem. Quippe quæ memoriam roborat; vocis et pronuneiationis tonum atque efficaciam temperat; vultum et gestum ad decorum componit, fiduciam non parvam conciliat, denique oculis hominum juvenes assuefacit. Erit autem exemplum e Tacito desumptum, Vibuleni cujusdam, olim histrionis, tunc temporis autem militantis in legionibus Pannonicis. Ille, sub excessu Augusti, seditionem moverat; ita ut Blæsus præfectus aliquos ex sceditiosis in carcerem conjiceret. Milites vero, impressione facta, illos effractis carceribus liberarunt. At Vibulenus, apud milites concionabundus, sic orsus est: "Vos," inquit, "his innocentibus et miserrimis lucem et spiritum reddidistis: sed quis fratri meo vitam, quis fratrem mihi reddit? quem missum ad vos a Germanico exercitu, de communibus commodis, nocte proxima jugulavit per gladiatores suos, quos in exitium militum habet atque armat. Responde, Blæse, ubi cadaver abjeceris? Ne hostes quidem sepulturam invident. Cum oculis, eum lacrymis dolorem meum implevero, me quoque trucidari jube; dum interfectos, nullum ob scelus, sed quia utilitati legionum consulebamus, hi sepeliant." Quibus verbis invidiæ ac consternationis nimium quantum conceivit; adeo ut, nisi brevi postea innotuisset nihil horum fuisse, quin etiam fratrem eum nunquam habuisse, vix a præfecto milites manus abstinuissent: ille vero rem totam, tanquam fabulam in scena peregit.

Nunc vero ad colophonem pervenimus tractatus nostri de doctrinis rationalibus. In quibus, licet a partitionibus receptis interdum recesserimus, nemo tamen existimet, nos illas omnes improbare partitiones, quibus usi non sumus. Duplex enim nobis imponitur necessitas partitiones mutandi: una, quia hæc duo, nimirum, res natura proximas in unam classem redigere, et res ad usum promendas conjicere in unum cumulum; fine ipso et intentione, sunt omnino diversa. Exempli gratia; secretarius aliquis regis aut reipublicæ in museo chartas suas ita procul dubio distribuit, ut quæ similis sint naturæ simul componat, veluti fœdera seorsum, seorsum mandata, literas ab exteris, literas domesticas, et similia, seorsum omnia. Contra, in scrinio aliquo particulari illas simul componit, quas, licet diversi generis sunt, simul tamen usui fore existimet: sic nimirum in hoc universali scientiæ repositorio, nobis pro natura rerum ipsarum partitiones erant instituendæ: cum tamen, si particularis aliqua scientia fuisset pertractanda, partitiones fuissemus secuti, usui et praxi potius accommodatas. Altera necessitas partitiones mutandi est, quia desideratorum ad scientias adjectio, et eorum cum reliquis in integrum corpus redactio, etiam per consequentiam, scientiarum ipsarum partitiones transtulit. Nam (demonstrationis gratia) esto quod artes quæ habentur, rationem habeant numeri 15, adjectis autem desideratis numeri 20. Dico quod partes numeri 15, non sunt eadem partes, quæ numeri 20. Nam partes numeri 15, sunt 3, et 5. Partes vero numeri 20, sunt 2, 4, 5, et 10. Itaque patet quod hæc aliter fieri non potuerint. Atque de scientiis logicis hæc dicta sint.

FRANCISCI

BARONIS DE VERULAMIO, VICE-COMITIS SANCTI ALBANI,

DE

DIGNITATE ET AUGMENTIS SCIENTIARUM.

LIBER SEPTIMUS.

AD REGEM SUUM.

CAPUT PRIMUM.

Partitio ethicæ in doctrinam de exemplari, et georgica animi. Partitio exemplaris (scilicet boni) in bonum simplex, et bonum comparatum. Partitio boni simplicis, in bonum individuale, et bonum communionis.

Perventum est (rex optime) ad ethicam, quæ voluntatem humanam intuetur et tractat. Voluntatem gubernat recta ratio, seducit bonum apparens; voluntatis stimuli affectus, ministri organa et motus voluntarii. De hac Salomon, "Ante omnia," inquit, "custodi, fili, cor tuum, nam inde procedunt actiones vitæ." In hujus scientiæ pertractatione, qui de ea scripserunt, perinde mihi fecisse videntur, ac si quis scribendi artem tradere pollicitus, pulchra tantum exhibeat exemplaria literarum tam simplicium quam copulatarum: de calamo vero ducendo, aut modis characteres efformandi, nihil præcipiat: ita

et isti proposuerunt nobis exemplaria bella et lueulenta, atque descriptiones sive imagines accuratas, boni, virtutis, officiorum, felicitatis, tanquam vera objecta, et scopus voluntatis et appetitus humani: verum quomodo quis possit optime ad hos scopos (excellentes sane, et bene ab illis positos) collimare; hoc est, quibus rationibus et institutis animus ad illa assequenda subigi et componi possit, aut nihil præcipiunt, aut perfunctorie et minus utiliter. Disseramus, quantum libuerit, virtutes morales in animo humano esse habituaIiter, non naturaliter: distinguamus solenniter, inter spiritus generosos et vulgus ignobile; quod illi rationum momentis, hi præmio aut pœna, ducantur: præcipiamus ingeniose, animum humanum, ut rectificetur, instar bacilli, in contrariam partem inclinationis suæ flecti oportere: aliaque insuper hujusmodi hinc inde spargamus: longe tamen abest, ut hæc et alia id genus, absentiam rei excusent, quam modo requirimus.

Hujusce neglectus causam haud aliam esse reor, quam latentem illum scopulum, ad quem tot scientiæ naviculæ impingentes, naufragia passæ sunt: nimirum, quod fastidiant scriptores versari in rebus vulgatis et plebeiis, quæ nec satis subtiles sint ad disputandum, nec satis illustres ad ornandum. Sane haud facile quis verbis assequatur, quantam ealamitatem attulerit hoc ipsum, quod dicimus: quod homines ingenita superbia, et gloria vana, eas materias tractationum, eosque modos tractandi sibi delegerint, quæ ingenia ipsorum potius commendent, quam lectorum utilitatibus inserviant. Optime Seneca, "Nocet illis eloquentia, quibus non rerum facit cupiditatem, sed sui:" siquidem scripta talia esse debent, ut amores documentorum ipsorum, non doctorum excitent. Ii igitur recta incedunt via, qui de consiliis suis id prædicare possint, quod fecit Demosthenes, atque hac clausula ea concludere, " Quæ si feceritis, non oratorem duntaxat in præsentia laudabitis, sed vosmet ipsos etiam, non ita multo post, statu rerum vestrarum meliore." Ego certe (rex optime) ut de meipso, quod res est, loquar, et in iis, quæ nunc edo, et in iis, quæ in posterum meditor, dignitatem ingenii et nominis nici (si qua sit) sæpius sciens et volens projicio, dum commodis humanis inserviam: quique architectus fortasse in philosophia et scientiis esse debeam, etiam operarius et bajulus, et quidvis demum fio; cum haud pauca, quæ omnino fieri necesse sit, alii autem ob innatam superbiam subterfugiant, ipse sustineam et exequar. Verum (ut ad rem redeamus) quod cœpimus dicere, delegerunt sibi philosophi in ethica massam quandam materiæ splendidam et nitentem, in qua potissimum vel ingenii acumen, vel eloquentiæ vigorem venditare possint: quæ vero practicam maxime instruunt, quandoquidem tam belle ornari non possint, maxima ex parte omiserunt.

Neque tamen debuerant viri tam eximii desperasse de fortuna, simili ei, quam poëta Virgilius, et sibi spondere ausus, et revera consequutus est; qui non minorem eloquentiæ, ingenii, et eruditionis, gloriam adeptus est, in explicando observationes agriculturæ, quam Æneæ res gestas heroicas enarrando.

> " Nec sum animi dubius, verbis ea vincere magnum
> Quam sit, et angustis hunc addere rebus honorem."

Certe, si serio hominibus cordi sit, non in otio scribere, quæ per otium legantur, sed revera vitam activam instruere et subornare; georgica ista animi humani non minore in pretio apud homines haberi debeant, quam heroicæ illæ effigies virtutis, boni, et felicitatis, in quibus tam operose est insudatum.

Partiemur igitur ethicam in doctrinas principales duas; alteram de exemplari sive imagine boni; alteram de regimine et cultura animi, quam etiam partem georgica animi appellare consuevimus: illa naturam boni describit, hæc regulas de animo ad illam conformando præscribit.

Doctrina de exemplari (quæ boni naturam intuetur et describit) bonum considerat, aut simplex, aut comparatum; aut genera (inquam) boni, aut gradus. In posteriore horum, disputationes illas infinitas, et speculationes circa boni supremum gradum, quem felicitatem, beatitudinem, summum bonum vocitarunt (quæ ethnicis instar theologiæ erant) Christiana tandem fides sustulit, et missas fecit. Quemadmodum enim Aristoteles ait, " Adolescentes posse etiam beatos esse, sed non aliter quam spe;" eodem modo, a Christiana fide edocti, debemus nos omnes minorum et adolescentum loco statuere, ut non aliam felicitatem cogitemus, quam quæ in spe sita est.

Liberati igitur (bonis avibus) ab hac doctrina, tanquam de cœlo ethnicorum (qua in parte proculdubio elevationem naturæ humanæ attribuerunt majorem, quam cujus illa esset capax: videmus enim quali cothurno Seneca; " Vere magnum, habere fragilitatem hominis, securitatem Dei ") reliqua certe ab illis circa doctrinam exemplaris tradita, minore aut veritatis aut sobrietatis jactura, magne ex parte recipere possumus. Etenim, quod ad naturam boni positivi et simplicis spectat, illam certe pulcherrime et ad vivum, veluti in tabulis eximiis, depinxerunt; virtutum et officiorum figuras, posituras, genera, affinitates, partes, subjecta, provincias, actiones, dispensationes, diligentissime sub oculos repræsentantes. Neque hic finis: nam hæc omnia animo humano, magno quoque argumentorum acumine et vivacitate, et suasionum dulcedine, commendarunt atque insinuarunt: quinetiam (quantum verbis præstari possit) eadem contra pravos et populares errores et insultus, fidelissime muniverunt. Quatenus vero ad naturam boni comparati, huic rei etiam nullo modo defuerunt: in constituendis trinis illis ordinibus bonorum; in collatione vitæ contemplativæ cum activa; in discriminatione virtutis cum reluctatione, et virtutis jam securitatem nactæ, et confirmatæ; in conflictu et pugna honesti et utilis; in virtutum inter se libramine, nimirum cui quæque præponderet, et similibus. Adeo ut hanc partem de exemplari insigniter excultam jam esse, et antiquos in ea re mirabiles ac viros præstitisse, reperiam: ita tamen, ut philosophos longo post se intervallo reliquerit pia et strenua theologorum diligentia, in officiis, et virtutibus moralibus, et casibus conscientiæ, et peccati circumscriptionibus pensitandis et determinandis exercitata.

Nihilo secus (ut ad philosophos redeamus) si illi (antequam ad populares et receptas notiones virtutis, vitii, doloris, voluptatis, et cæterorum, se applicassent) supersedissent paulisper, et radices ipsas boni et mali,

et radicum illarum fibras indagassent; ingentem, meo judicio, lucem illis omnibus, quæ postea in inquisitionem ventura fuissent, affudissent: ante omnia, si naturam rerum non minus, quam axiomata moralia, consuluissent, doctrinas suas minus prolixas, magis autem profundas reddidissent. Quod cum ab illis aut omnino omissum, aut confuse admodum tractatum fuerit, nos breviter retractabimus; et fontes ipsos rerum moralium aperire et purgare conabimur, antequam ad doctrinam de cultura animi, quam ponimus ut desideratam, perveniamus. Hoc enim (ut arbitramur) doctrinam de exemplari novis quodammodo viribus donabit.

Inditus est atque impressus unicuique rei appetitus ad duplicem naturam boni; alteram qua res totum quiddam est in seipsa: alteram, qua est pars totius alicujus majoris. Atque posterior hæc illa altera dignior est, et potentior, cum tendat ad conservationem formæ amplioris. Nominetur prima, bonum individuale, sive suitatis; posterior, bonum communionis. Ferrum sympathia particulari fertur ad magnetem: at si paulo ponderosius fuerit, amores illos deserit, et tanquam bonus civis, et amator patriæ, terram petit, regionem scilicet connaturalium suorum. Ulterius paulo pergamus; corpora densa et gravia terram petunt, congregationem magnam corporum densorum: attamen, potius quam natura rerum divulsionem patiatur, et detur (ut loquuntur) vacuum, corpora hujusmodi in sursum ferentur, et cessabunt ab officio suo erga terram, ut præstent officium suum mundo ipsi debitum. Ita quasi perpetuo obtinet, ut conservatio formæ magis communis minores appetitus in ordinem redigat. At prærogativa ista boni communionis signatur præcipue in homine, si non degeneraverit; juxta memorabile illud Pompeii Magni dictum, qui, quo tempora Romam fames premeret, annonæ importandæ præpositus, vehementissime autem ab amicis interpellatus ne mari, atroce tempestate ingruente, se committeret; illud tantum respondit, "Necesse est ut eam, non ut vivam:" adeo ut vitæ desiderium (quod in individuo maximum est) amori et fidei in rempublicam apud eum non præponderaret. Sed quid moramur? Nulla, omnibus seculis, reperta est vel philosophia, vel secta, vel religio, vel lex, aut disciplina, quæ in tantum communionis bonum exaltavit, bonum vero individuale depressit, quantum sancta fides Christiana: unde liquido pateat, unum eundemque Deum fuisse, qui creaturis leges illas naturæ, hominibus vero legem Christianam dedisset. Propterea legimus, nonnullos ex electis et sanctis viris optasse se potius erasos ex libro vitæ, quam ut salus ad fratres suos non perveniret; ecstasi quadam charitatis, et impotenti desiderio boni communionis incitati.

Hoc positum, ita ut immotum manent et inconcussum, nonnullis ex gravissimis in morali philosophia controversiis finem imponit. Primo enim quæstionem illam determinat, de vita contemplativa activæ præferenda: idque contra sententiam Aristotelis. Omnes siquidem rationes, quæ ab illo pro contemplativa afferuntur, bonum privatum respiciunt, atque individui tantum ipsius voluptatem, aut dignitatem; quibus in rebus contemplativa palmam haud dubie reportat. Etenim contemplativa non absimilis est comparationi, qua usus est Pythagoras, ut philosophiæ et contemplationi honorem ac decus assereret: qui ab Hierone, quisnam esset, interrogatus, respondit; Hieronem non latere (si forte unquam Olympicis certaminibus interfuisset) id ibi loci contingere, ut veniant eo alii fortunæ suæ in agonibus periculum facturi; alii vero ut mercatores, ad merces distrahendas; alii ut amicos undique confluentes convenirent, et epulis ac hilaritati indulgerent; alii denique ut cæterorum essent spectatores: se autem unum esse ex illis, qui spectandi gratia venerit. Verum homines nosse debent, in hoc humanæ vitæ theatro, Deo et angelis solum convenire, ut spectatores sint. Neque sane fieri potuit, ut hac de re dubitatio in ecclesia unquam suscitaretur (utcunque plurimis in ore fuerit dictum illud, "Pretiosa in oculis Domini mors sanctorum ejus:" ex quo loco mortem illam civilem, et instituta vitæ monasticæ et regularis attollere solebant) nisi illud etiam una subesset, quod vita illa monastica mere contemplativa non sit, verum plane in officiis ecclesiasticis versetur; qualia sunt jugis oratio, et votorum sacrificia Deo oblata; librorum item theologicorum, multo in otio, conscriptio, ad legis divinæ doctrinam propagandum: quemadmodum et Moses fecit, cum per tot dies in montis secessu moratus esset. Quinetiam Henoch, ab Adamo septimus, qui videtur fuisse princeps vitæ contemplativæ (etenim "cum Deo ambulasse" perhibetur) nihilominus ecclesiam prophetiæ libro (qui etiam a sancto Juda citatur) dotavit. Contemplativam vero quod attinet meram, et in se ipsa terminatam, quæque radios nullos, sive caloris, sive luminis, in societatem humanam diffundat, nescit eam certe theologia.

Determinat etiam quæstionem, tanta contentione agitatam, inter scholas Zenonis et Socratis ex una parte, qui felicitatem in virtute, aut sola, aut adornata (cujus semper in officiis vitæ partes potissimæ) collocarunt: et reliquas complures sectas et scholas, ex altera parte: veluti scholas Cyrenaicorum et Epicureorum; qui eam in voluptate constituerunt: virtutem autem (sicut fit in comœdiis aliquibus, ubi hera cum famula vestem mutet) plane ancillam statuerunt: utpote sine qua voluptati commode ministrari non posset: nec minus illam alteram Epicuri scholam, quasi reformatam; quæ felicitatem nihil aliud esse prædicabat, quam animi tranquillitatem et serenitatem, a perturbationibus liberi, et vacui; ac si Jovem de solio deturbare vellent, et Saturnum cum aureo seculo reducere, quando neque æstas nec bruma fuissent, non ver, nec autumnus, sed una et æquabilis aëris temperies: denique et illam explosam Pyrrhonis et Herilli scholam, qui sitam autumaverunt felicitatem in scrupulis quibusque animi prorsus eliminandis, nullam statuentes fixam et constantem boni aut mali naturam, sed actiones pro bonis aut malis habentes, prout ex animo, motu puro et irrefracto, aut contra, cum aversatione et reluctatione, prodirent; quæ tamen opinio in hæresi Anabaptistarum revixit, qui cuncta metiebantur juxta motus et instinctus spiritus, et constantiam vel vacillationem fidei. Liquet autem ista, quæ recensuimus, omnia ad privatam animorum tranquillitatem, et complacentiam, nullo modo autem ad bonum communionis, spectare.

Porro redarguit etiam philosophiam Epicteti, qui hoc utitur præsupposito; felicitatem in iis poni debere, quæ in potestate nostra sunt, ne scilicet fortunæ et casibus simus obnoxii: quasi vero non multo fuerit felicius, in rectis et generosis intentionibus, et finibus, qui publicum bonum amplectantur, successu destitui et frustrari, quam in omnibus, quæ ad privatam tantum fortunam nostram referuntur, voti perpetuo compotes fieri. Sicut Consalvus, Neapolim digito militibus indicans, generosa voce testatus est, multo sibi optatius fore, unum pedem promovendo, ad interitum certum rucre, quam unius pedis recessu, vitam in multos annos producere. Cui etiam concinit cœlestis dux et imperator, qui pronunciavit "conscientiam bonam juge esse convivium;" quibus verbis aperte significat, mentem bonarum intentionum sibi consciam, utcunque successu careat, verius et purius, et naturæ magis consentaneum præbere gaudium, quam universum illum apparatum, quo instrui possit homo, vel ut desideriis suis fruatur, vel ut animo conquiescat.

Redarguit itidem philosophiæ abusum illum, circa Epicteti tempora grassari cœptum: nempe quod philosophia versa fuerit in genus quoddam vitæ professorium et tanquam in artem; quasi scilicet institutum philosophiæ esset, non ut perturbationes compescerentur et extinguerentur; sed ut causæ et occasiones ipsarum evitarentur et summoverentur: ideoque particularis quædam vitæ ratio ad hoc obtinendum ineunda esset: introducendo sane tale genus sanitatis in animum, quale fuit Herodici in corpore: cujus meminit Aristoteles; illum scilicet nihil aliud per totam vitam egisse, quam ut valetudinem curaret; et proinde ab infinitis rebus abstinceret, corporis interim usu quasi multatus. Ubi si hominibus officia societatis consectari cordi sit, illa demum valetudo maxime est expetenda, quæ quaslibet mutationes et impetus quoscunque ferre et vincere queat. Eodem modo et animus ille demum vere et proprie sanus et validus censendus est, qui per plurimas et maximas tentationes et perturbationes perrumpere potest. Ita ut optime Diogenes dixisse visus sit; qui eas vires animi laudarit, "quæ non ad caute abstinendum, sed ad fortiter sustinendum valerent;" quæque animi impetum, etiam in maximis præcipitiis, cohibere possint; quæque (id quod in equis bene subactis laudatur) præstent, ut brevissimo spatio, et sistere se, et vertere possint.

Postremo, redarguit idem teneritudinem quandam, et ineptitudinem ad morigerandum, in nonnullis ex antiquissimis philosophis, et maxime in veneratione habitis, notatam: qui nimis facile se a rebus civilibus subduxerint, ut indignitatibus et perturbationibus se exuerent; atque magis, sua opinione, illibati, et tanquam sacrosancti, viverent: ubi consentaneum esset, constantiam hominis vere moralis talem fore, qualem idem Consalvus in homine militari requirebat; nimirum ut honor ejus contexerctur tanquam e tela crassiore; minimeque tam tenui, ut quidvis illud vellicare et lacerare possit.

CAPUT SECUNDUM.

Partitio boni individualis, vel suitatis, in bonum activum, et bonum passivum. Partitio boni passivi, in bonum conservativum, et bonum perfectivum. Partitio boni communionis, in officia generalia, et respectiva.

Repetamus igitur jam et persequamur primum bonum individuale, et suitatis. Illud partiemur in bonum activum, et bonum passivum. Etenim hæc quoque differentia boni (non absimilis certe illis appellationibus, quæ Romanis in œconomicis erant familiares, promi scilicet, et condi) in universa rerum natura impressa reperitur: præcipue autem se prodit in duplici rerum creatarum appetitu; altero, se conservandi et muniendi; altero se multiplicandi et propagandi: atque hic posterior, qui activus est, et veluti promus, potentior videtur et dignior; ille autem prior, qui passivus est, et veluti condus, inferior censeri potest. Etenim in universitate rerum, natura cœlestis præcipue agens est; at natura terrestris, patiens. Etiam in delectationibus animantium, major voluptas est generandi, quam pascendi. In oraculis quoque divinis pronunciatur, "Beatius esse dare, quam accipere." Quin et in vita communi, nemo invenitur ingenio tam molli et effœminato, quin pluris faciat aliquid, quod ei in votis erat, perficere, et ad exitum perducere, quam sensualitatem aliquam, aut delectamentum. Atque ista quidem boni activi pre-eminentia in immensum exaltatur, ex intuitu conditionis humanæ, quod sit et mortalis, et fortunæ actibus exposita. Nam si in voluptatibus hominum posset obtineri perpetuitas atque certitudo, magnum pretium eis accederet, propter securitatem et moram. Quandoquidem autem rem videmus huc recidere: Magni æstimamus mori tardius: et, Ne glorieris de crastino; nescis partum diei: mirum minime est, si omni contentione feramur ad ea, quæ temporis injurias non reformident. Ea vero nulla esse possunt, præter opera nostra; sicut dicitur, "Opera eorum sequuntur eos." Est et altera præeminentia boni activi haud exigua, indita et sustentata ex eo affectu, qui humanæ natnræ, ut comes individuus, lateri adhæret: amor scilicet novitatis aut varietatis. Ille vero in sensuum voluptatibus (quæ boni passivi pars sunt vel maxima) angustus admodum est, nec latitudinem habet aliquam insignem: "Cogita quamdiu eadem feceris; cibus, somnus, ludus; per hunc circulum curritur. Mori velle, non tantum fortis, aut miser, aut prudens, sed etiam fastidiosus potest." At in actis vitæ nostræ, et institutis, et ambitionibus, insignis est varietas; eaque multa cum voluptate percipitur, dum inchoamus, progredimur, interquiescimus, regredimur, ut vires augeamus, appropinquamus, denique obtinemus, et hujusmodi; ut vere admodum dictum sit, vita sine proposito, languida et vaga est. Quod simul et prudentibus et stultissimis competit, ut ait Salomon; "Pro desiderio quærit cerebrosus, omnibus immiscet se." Quinetiam videmus, reges potentissimos, ad quorum nutum, quæcunque sensibus grata sunt, parari possent, nihilominus procurasse sibi interdum desi-

deria humilia et inania (quemadmodum cithara fuit Neroni, gladiatoria Commodo, Antonino aurigatio, et alia aliis) quæ tamen ipsis fuerint omni affluentia voluptatum sensualium potiora. Tanto voluptatem majorem effert, ut aliquid agamus, quam ut fruamur.

Illud interim paulo attentius notandum est, bonum activum, individuale, a bono communionis prorsus differre; quanquam nonnunquam ambo coincidant. Quamvis enim bonum istud individuale, activum, sæpe opera beneficentiæ (quæ ex virtutibus communionis est) pariat et producat; illud tamen interest, quod illa opera ab hominibus plurimis fiant, non animo alios juvandi aut beandi, sed plane propter se, atque potentiam et amplitudinem propriam. Id quod optime cernitur, quando bonum activum in aliquid impinget, quod sit bono communionis contrarium. Siquidem gigantea illa animi conditio, qua abripiuntur magni isti orbis terrarum perturbatores (qualis fuit L. Sylla, et plurimi alii, licet in modulo longe minore) qui videntur ad hoc anhelare, ut omnes felices et ærumnosi sint, prout sibi fuerint amici, vel inimici; atque ut mundus tanquam ipsorum præferat imaginem (quæ vera est theomachia) hæc, inquam, ipsa aspirat ad bonum activum, individuale, saltem apparens; etsi a bono communionis omnium maxime recedat.

At bonum passivum partiemur, in bonum conservativum, et bonum perfectivum. Etenim inditus est unicuique rei triplex appetitus, quatenus ad bonum suitatis, sive individui. Primus, ut se conservet: secundus, ut se perficiat: tertius, ut se multiplicet sive diffundat. Atque hic postremus appetitus ad bonum activum refertur, de quo jam modo diximus. Superant igitur reliqua tantum duo, quæ diximus, bona: ex quibus præcellit perfectivum. Minus enim quiddam est, conservare rem in suo statu: majus vero, eandem ad naturam sublimiorem evehere. Reperiuntur siquidem per res universas, naturæ aliquæ nobiliores, ad quarum dignitatem et excellentiam, naturæ inferiores aspirant, veluti ad origines et fontes suos. Sic de hominibus non male cecinit ille:

> "Igneus est ollis vigor, et cœlestis origo."

Homini enim, assumptio aut approximatio ad divinam aut angelicam naturam, est formæ suæ perfectio. Cujus quidem boni perfectivi prava et præpostera imitatio, pestis est ipsa vitæ humanæ, et turbo quidam rapidus, qui omnia abripit et subvertit. Nimirum, dum homines, exaltationis vice formalis atque essentialis, cæca ambitione advolant ad exaltationem tantummodo localem. Quemadmodum enim ægri, remedium mali sui non invenientes, de loco in locum corpus agitant et volvunt; quasi ex mutatione loci a seipsis abscedere, et internum malum effugere possint: eodem modo evenit in ambitione, ut homines, simulachro quodam falso naturæ suæ exaltandæ abrepti, nihil aliud adipiscantur, quam loci quandam celsitudinem et fastigium.

Bonum vero conservativum nihil aliud est, quam receptio et fruitio rerum naturæ nostræ congruentium. Hoc vero bonum, licet maxime sit simplex et nativum, tamen ex bonis videtur mollissimum atque infimum. Quin et hoc ipsum bonum recipit differentiam nonnullam; circa quam partim vacillavit judicium hominum, partim omissa est inquisitio. Boni siquidem fruitionis, sive, quod vulgo dicitur, jucundi dignitas et commendatio, aut in sinceritate fruitionis sita est, aut in ejusdem vigore: quorum alterum inducit et præstat æqualitas; alterum autem varietas et vicissitudo: alterum minorem habet mixturam mali, alterum impressionem magis fortem et vividam boni. Cæterum, horum utrum melius, ambigitur: dein, num natura humana utrumque simul apud se retinere possit, non inquiritur.

Atque quantum ad id, de quo ambigitur, ventilari cœpit illa controversia inter Socratem et sophistam quendam. Ac Socrates quidem asserebat, Felicitatem sitam esse in animi pace constante, et tranquillitate: sophista vero in hoc, Ut quis multum appetat, et multum fruatur. Quin et ab argumentis delapsi sunt ad convicia; dicente sophista, felicitatem Socratis, stipitis vel lapidis esse felicitatem; e contra Socrate, sophistæ felicitatem, felicitatem esse scabiosi, qui perpetuo pruriret et scalperet. Neque tamen desunt utrique sententiæ sua firmamenta. Nam Socrati assentitur vel Epicuri schola ipsa, quæ virtutis, ad felicitatem, partes esse maximas, non diffitebatur. Quod si ita sit, certo certius est, virtutis majorem esse usum in perturbationibus sedandis, quam rebus cupitis adipiscendis. Sophistæ autem nonnihil suffragari videtur assertio illa, cujus a nobis mentio modo facta est, quod videlicet bonum perfectivum bono conservativo sit superius; quippe quia cupitarum rerum adeptiones naturam videantur sensim perficere: quod licet vere non faciant, tamen et motus ipse in circulo, speciem nonnullam præ se fert motus progressivi.

At secunda quæstio (num scilicet natura humana non possit et animi tranquillitatem, et fruendi vigorem, simul retinere) rite definita, priorem illam reddit otiosam et supervacaneam. Annon enim videmus, haud raro animos nonnullorum ita factos et compositos, ut voluptatibus afficiantur vel maxime cum adsint, et tamen earum jacturam non gravate ferant? Ita ut series illa philosophica, "Non uti, ut non appetas; non appetere, ut non metuas," videatur esse pusilli cujusdam animi, et diffidentis. Sane, doctrinæ pleræque philosophorum videntur esse paulo timidiores, et cavere hominibus plusquam natura rerum postulat. Veluti, cum mortis formidinem medendo augent. Etenim, cum nihil aliud fere vitam humanam faciant, quam mortis quandam præparationem et discipliuam, quomodo fieri possit, ut ille hostis mirum in modum non videatur terribilis, contra quem muniendi nullus sit finis? Melius poëta (ut inter ethnicos;)

> "Qui finem vitæ extremum inter munera ponat Naturæ."

Similiter et in omnibus annisi sunt philosophi animum humanum reddere nimis uniformem et harmonienm: eum motibus contrariis et extremis minime assuefaciendo. Cujus causam arbitror fuisse, quod ipsi vitæ se privatæ dedicarunt, a negotiis et aliorum obsequiis immuni et liberæ. Quin potius imitentur homines prudentiam gemmariorum; qui si forte in gemma inveniatur nubecula aliqua, aut glaciecula, quæ ita posset eximi, ut magnitudini lapidis non

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nimium detrahatur, eam tollunt; aliter vero intactam eam relinquunt: pari ratione, serenitati animorum ita consulendum est, ut non destruatur magnanimitas. Atque de bono individuali hactenus.

Postquam igitur de bono suitatis (quod etiam particulare, privatum, individuale, appellare solemus) jam dixerimus; repetamus bonum communionis, quod societatem intuetur. Istud nomine officii vocari consuevit: siquidem vocabulum *officii* magis proprie attribuitur animo bene disposito erga alios: vocabulum *virtutis* animo intra se recte formato et composito. Verum ista pars, primo intuitu, scientiæ civili deberi videtur: attamen, si diligentius attendas, non ita: siquidem tractat regimen et imperium uniuscujusque in seipsum, neutiquam vero in alios. Atque sicut in architectura, alia res est, postes, trabes, et cæteras ædificii partes efformare, et ad ædificandi usum præparare; alia autem, easdem ad invicem aptare et compaginare: sicut etiam in mechanicis, instrumentum aut machinam fabricare et conficere, non idem est, quod fabricatum erigere, movere, et in opere ponere: sic doctrina de conjugatione ipsa hominum in civitate, sive societate, differt ab ea, quæ eos reddit ad hujusmodi societatis commoda conformes et bene affectos.

Ista pars de officiis, etiam in duas portiones tribuitur: quarum altera tractat de officio hominis in communi: altera de officiis specialibus et respectivis, pro singulorum professione, vocatione, statu, persona, et gradu. Harum primam, satis excultam, diligenterque a veteribus et aliis explicatam, jam antea retulimus; alteram quoque, sparsim quidem tractatam, licet non in corpus aliquod integrum scientiæ digestam, reperimus. Neque tamen hoc ipsum, quod sparsim tractetur, reprehendimus; quinimo de hoc argumento per partes scribi longe consultius existimamus. Quis enim tanta fuerit vel perspicacia vel confidentia, ut de officiis peculiaribus et relativis, singulorum ordinum et conditionum, perite et ad vivum disceptare, et definire possit, aut sustineat? Tractatus autem, qui experientiam non sapiunt, sed ex notitia rerum generali et scholastica tantummodo deprompti sunt, de rebus hujusmodi, inanes plerunque evadunt et inutiles. Quamvis enim aliquando contingat, spectatorem ea animadvertere, quæ lusorem fugiant; atque jactetur proverbium quoddam magis audaculum, quam sanum, de censura vulgi circa actiones principum, "stantem in valle optime perlustrare montem;" optandum tamen imprimis esset, ut non nisi expertissimus et versatissimus quisque se hujusmodi argumentis immisceret. Hominum enim speculativorum, in materiis activis, lucubrationes, iis, qui in agendo fuerint exercitati, nihilo meliores videntur, quam dissertationes Phormionis de bellis æstimatæ sunt ab Hannibale, qui eas habuit pro somniis et deliriis. Unum duntaxat vitium illos occupat, qui de rebus ad suum munus aut artem pertinentibus libros conscribunt; quod scilicet in illis Spartis suis ornandis atque attollendis modum tenere nesciant.

In hoc genere librorum, piaculum foret, non meminisse (honoris causa) excellentissimi illius operis, a majestate tua elucubrati, "De officio regis." Scriptum enim hoc plurimos intra se cumulavit ac reconditum thesaurum, tam conspicuos, quam occultos, theologiæ, ethicæ, et politicæ; insigni cum aspersione aliarum artium: estque, meo judicio, inter scripta, quæ mihi perlegere contigerit, præcipue sanum et solidum. Non illud ullo loco, aut inventionis fervore æstuat, aut indiligentiæ frigore torpet aut dormitat; non vertigine aliquando corripitur, unde in ordine suo servando confundatur aut exeidat: non digressionibus distrahitur, ut illa, quæ nihil ad rhombum sunt, expatiatione aliqua flexuosa complectatur: non odoramentorum aut pigmentorum fueis adulteratur; qualibus illi utuntur, qui lectorum potius delectationi, quam argumenti naturæ inserviunt: ante omnia vero, spiritu valet istud opus non minus, quam corpore, utpote quod et cum veritate optime consentiat, et ad usum sit accommodatissimum. Quinetiam vitio illo, de quo paulo ante diximus (quod, si in alio quopiam, in rege certe, et scripto de majestate regia, tolerandum fuerit) omnino caret; nempe, quod eulmen et fastigium regium non immodice aut invidiose extollat; siquidem majestas tua regem non depinxit aliquem, Assyriæ aut Persiæ, gloria et externo fastu nitentem, et coruscantem: sed vere Mosem, aut Davidem, pastores scilicet populi sui. Neque vero mihi unquam memoria exeidet dictum quoddam vere regium, quod in lite gravissima terminanda majestas tua, pro sacro illo, quo præditus es, spiritu ad populos regendos, pronunciavit; nimirum, "Reges juxta leges regnorum suorum gubernacula tractare, quemadmodum et Deus juxta leges naturæ: et æque raro prærogativam illam suam, quæ leges transcendit, ab illis usurpandam, ac a Deo videmus usurpari potestatem miraeula patrandi." Nihilo tamen seeius, ex libro illo altero, a majestate tua conscripto, "De libera monarchia," satis omnibus innotescit, non minus majestati tuæ cognitam esse et perspectam plenitudinem potestatis regiæ, atque ultimitates (ut scholastici loquuntur) jurium regalium, quam officii et muneris regii limites et cancellos. Non dubitavi igitur in medium adducere librum illum, a majestatis tuæ calamo exaratum, tanquam exemplum primarium et maxime illustre tractatuum de peculiaribus et respectivis officiis. Quo de libro, quæ a me jam dicta sunt, dixissem profecto, si ante annos mille a rege quopiam conscriptus fuisset. Neque vero me movet decorum illud, quod vulgo præscribitur, ne quis coram laudetur: modo laudes illæ nec modum excedant, nec intempestive, aut nulla data occasione, tribuantur. Cicero certe, in luculentissima illa oratione sua pro M. Marcello, nihil aliud agit, quam ut exhibeat tabulam quandam, singulari artificio depictam, de laudibus Cæsaris, licet coram ipso oratio illa haberetur. Quod et Plinius secundus fecit erga Trajanum. Itaque jam ad propositum revertamur.

Pertinet porro ad hanc partem de officiis respectivis vocationum, et professionum singularum, doctrina alia, tanquam priori relativa, sive opposita; nimirum de fraudibus, cautelis, imposturis, et vitiis ipsarum: siquidem deprivationes et vitia officiis et virtutibus opponuntur. Neque omnino de his, in plurimis scriptis et tractatibus, siletur: sed sæpe ad illa notanda saltem obiter excurritur. At quo tandem modo? Per satiram scilicet, et cynice

(more Luciani) potius, quam serio et graviter. Etenim, plus operæ impenditur, ut pleraque in artibus, etiam utilia et sana, maligno dente vellicentur, et ad ludibrium hominibus exponantur, quam ut quæ in iisdem corrupta sunt et vitiosa, secernantur a salubribus et incorruptis. At optime Salomon: "quærenti derisori scientiam, ipsa se abscondit, sed studioso fit obviam." Quicunque enim ad scientiam aceedat animo irridendi et aspernandi, inveniet proculdubio quæ cavilletur plurima, ex quibus vero doctior fiat, perpauca. Verum, tractatio hujus, de quo loquimur, argumenti, gravis et prudens, atque cum integritate quadam et sinceritate conjuncta, inter munitissima virtutis ac probitatis propugnacula videtur numeranda. Nam sicut fabulose perhibetur de basilisco, si primus quempiam conspexerit, illico hominem perimit; si quis illum prior, basiliscus perit: pari ratione, fraudes, imposturæ, et malæ artes, si quis eas prior detexerit, nocendi facultate privantur; quod si illæ prævenerint, tum vero, non alias, periculum creant. Est itaque quod gratias agamus Machiavello, et hujusmodi scriptoribus, qui aperte et indissimulanter proferunt, quid homines facere soleant, non quid debeant. Fieri enim nullo modo potest, ut conjungatur serpentina illa prudentia cum innocentia columbina, nisi quis mali ipsius naturam penitus perneseat. Absque hoc enim deerunt virtuti sua præsidia et munimenta. Imo, neque ullo modo possit vir bonus et probus malos et improbos corrigere et emendare, nisi ipse, prius omnia malitiæ latibula et profunda exploraverit. Etenim, qui judicio plane corrupto sunt, et depravato, hoc habent, ut præsupponant honestatem in hominibus ab insecitia et simplicitate quadam morum oriri; atque ab eo tantum, quod fides habeatur concionatoribus, et pædagogis; item libris, præceptis moralibus, et iis, qui vulgo prædicantur et decantantur, sermonibus: adeo ut, nisi plane perspiciant, opiniones suas pravas, ac corrupta et detorta principia, non minus illis, qui hortantur et admonent, quam sibi ipsis, esse explorata et cognita, probitatem omnem morum et consiliorum aspernentur; juxta oraculum illud Salomonis mirabile; "Non recipit stultus verba prudentiæ, nisi ea dixeris, quæ versantur in corde ejus." Hanc autem partem, de cautelis, et vitiis respectivis, inter desiderata numeramus: eamque nomine satiræ seriæ, sive tractatus de interioribus rerum, appellabimus.

Etiam ad doctrinam de officiis respectivis pertinent officia mutua, inter maritum et uxorem, parentes et liberos, dominum et servum: similiter leges amicitiæ, et gratitudinis; nec non civiles obligationes fraternitatum, collegiorum; etiam vicinitatis, ac similium: verum intelligatur hoc semper, illa istic tractari, non quatenus sunt partes soc.etatis civilis (id enim ad politicam refertur) sed quatenus animi singulorum, ad illa societatis vincula tuenda, instrui et prædisponi debeant.

At doctrinâ de bono communionis (quemadmodum et illa et individuali) bonum tractat, non tantum simpliciter, sed et comparate: quo spectat officia perpendere, inter hominem et hominem; inter casum et casum; inter privata et publica; inter tempus præsens et futurum: sicut videre est in animadversione illa severa et atroci L. Bruti, contra filios suos illam a plerisque in cœlum laudibus efferri; at alius quispiam dixit:

"Infelix, utcunque ferent ea fata minores."

Id ipsum licet intueri in cœna illa, ad quam invitati sunt M. Brutus, C. Cassius, et alii. Illic enim, cum ad animos explorandos, circa conspirationem in caput Cæsaris intentam, quæstio astute mota esset, Num licitum foret tyrannum occidere? ibant convivæ in opiniones diversas; dum alii dicerent, plane licere, quod servitus ultimum esset malorum: alii minime, quod tyrannus minus exitialis esset, quam bellum civile. Tertium autem genus, veluti ex schola Epicuri, asserebat, indignum esse prudentes perielitari pro stultis. Verum plurimi sunt casus de officiis comparatis; inter quos frequenter ille intervenit: Utrum a justitia deflectendum sit, propter salutem patriæ, aut hujusmodi aliquod insigne bonum in futuro? Circa quem Jason Thessalus dicere solebat: Aliqua sunt injuste facienda, ut multa juste fieri possint. Verum replicatio in promptu est: Auctorem præsentis justitiæ habes; sponsorem futuræ non habes. Sequantur homines, quæ in præsentia bona et justa sunt; futura divinæ providentiæ remittentes. Atque circa doctrinam de exemplari, sive de bono, hæc dicta sint.

CAPUT TERTIUM.

Partitio doctrinæ de cultura animi; in doctrinam de characteribus animorum; de affectibus; et de remediis, sive curationibus. Appendix doctrinæ ejusdem de congruitate inter bonum animi, et bonum corporis.

Nunc igitur, postquam de fructu vitæ (sensu intelligimus philosophico) verba fecerimus; superest, ut de cultura animi, quæ ei debetur, dicamus: sine qua pars prior nihil aliud videtur, quam imago quædam, aut statua, pulchra quidem aspectu, sed motu et vita destituta. Cui sententiæ Aristoteles ipse disertis verbis suffragatur: "Necesse est igitur de virtute dicere, et quid sit, et ex quibus gignatur. Inutile enim fere fuerit, virtutem quidem nosse, acquirendæ autem ejus modos et vias ignorare. Non enim de virtute tantum, qua specie sit, quærendum est, sed et quomodo sui copiam faciat: utrumque enim volumus, et rem ipsam nosse, et ejus compotes fieri: hoc autem ex voto non succedet, nisi sciamus, et ex quibus, et quo modo." Verbis adeo expressis, atque etiam iterato, hanc partem inculcat; quam tamen ipse non persequitur. Hoc similiter illud est, quod Cicero Catoni juniori, veluti laudem non vulgarem, attribuit; quod scilicet philosophiam amplexus esset, non disputandi causa, ut magna pars, sed ita vivendi. Quamvis autem, pro temporum, in quibus vivimus, socordia, paucis curæ sit, ut animum sedulo colant et componant, et vitæ rationem ad normam aliquam instituant (secundum illud Senecæ, "De partibus vitæ quisque deliberat; de summa nemo:" adeo ut hæc pars censeri possit supervacua) illud tamen minime nos movet, ut eam

intactam relinquamus, quin potius cum illo Hippocratis aphorismo concludimus; "Qui gravi morbo correpti, dolores non sentiunt, iis mens ægrotat." Medicina illis hominibus opus est, non solum ad curandum morbum, sed ad sensum expergefaciendum. Quod si quis objiciat, animorum curationem, theologiæ sacræ munus esse, verissimum est quod asserit; attamen philosophiam moralem in famulitium theologiæ recipi, instar ancillæ prudentis, et pedissequæ fidelis, quæ ad omnes ejus nutus præsto sit, et ministret, quid prohibeat? etenim quemadmodum in Psalmo habetur, quod "Oculi ancillæ perpetuo ad manus dominæ respiciunt;" cum tamen minime dubium sit, quin haud pauca ancillæ judicio et curæ relinquantur; eodem modo et ethica obsequium theologiæ omnino præstare debet, ejusque præceptis morigera esse; ita tamen ut et ipsa, intra suos limites, haud pauca sana et utilia documenta continere possit.

Hanc igitur partem (quando præstantiam ejus in animo recolo) in corpus doctrinæ nondum redactam, non possum non vehementer mirari. Eam igitur, ex more nostro, cum inter desiderata collocemus, aliqua ex parte adumbrabimus.

Ante omnia igitur in hac re (sicut et in universis, quæ spectant ad practicam) ratio nobis est subducenda, quid in nostra sit potestate, quid non. In altero enim datur alteratio, in altero vero applicatio tantum. Agricolæ nullum est imperium, aut in naturam soli, aut in aëris temperies; itidem nec medico, aut in crasin et constitutionem naturalem ægri, aut in accidentium varietatem. At in cultura animi, et morbis ejus persanandis, tria in considerationem veniunt; characteres diversi dispositionum; affectus, et remedia: quemadmodum et in corporibus medicandis proponuntur illa tria; complexio, sive constitutio ægri, morbus, et curatio. Ex illis autem tribus, postremum tantum in nostra potestate situm est; priora duo non item. Verum et in illis ipsis, quæ in potestate nostra non sunt, non minus diligens facienda est inquisitio, quam in illis, quæ potestati nostræ subjiciuntur. Etenim illorum perspicax et accurata cognitio substernenda est doctrinæ de remediis, ut eadem commodius et felicius applicentur. Neque enim vestis corpori aptari possit, nisi mensura corporis ante excipiatur.

Primus igitur articulus doctrinæ de cultura animi versabitur circa diversos characteres ingeniorum sive dispositionum. Neque tamen loquimur de vulgatis illis propensionibus in virtutes et vitia; aut etiam in perturbationes et affectus: sed de magis intrinsecis et radicalibus. Sane subiit animum, etiam in hac parte, nonnunquam admiratio, quod a scriptoribus, tam ethicis, quam politicis, ut plurimum neglecta aut prætermissa sit; cum utrique scientiæ clarissimum luminis jubar affundere possit. In traditionibus astrologiæ non inscite omnino distincta sunt ingenia, et dispositiones hominum, ex prædominantiis planetarum; quod alii a natura facti sint ad contemplationes; alii ad res civiles; alii ad militiam; alii ad ambitum; alii ad amores; alii ad artes; alii ad genus vitæ varium. Item apud poëtas (heroicos, satiricos, tragicos, comicos) spargunturubique simulacra ingeniorum, licet fere cum excessu, et præter modum veritatis. Quin et hoc ipsum argumentum, de diversis characteribus ingeniorum, est ex iis rebus, in quibus sermones hominum communes (quod valde raro, interdum tamen contingit) libris ipsis sunt prudentiores. At longe optima hujus tractatus suppellex et sylva peti debet ab historicis prudentioribus: neque tamen ab elogiis tantum, quæ sub obitum personæ alicujus illustris subnectere solent, sed multo magis ex corpore integro historiæ, quoties hujusmodi persona veluti scenam conscendat. Illa enim intertexta imago, potior videtur descriptio, quam elogii censura: qualia habetur apud T. Livium, Africani et Catonis majoris; apud Tacitum, Tiberii, Claudii, et Neronis; apud Herodianum, Septimii Severi; apud Philippum Comineum, Lodovici undecimi Gallorum regis; apud Franciscum Guicciardinum, Ferdinandi Hispani, Maximiliani Cæsaris, et Leonis, et Clementis, pontificum. Isti enim scriptores, harum personarum, quas sibi depingendas delegerunt, effigies quasi perpetuo intuentes, nunquam fere rerum gestarum ab ipsis mentionem faciunt, quin et aliquid insuper de natura ipsorum inspergant. Etiam nonnullæ, in quas incidimus, relationes de conclavibus pontificum, characteres de moribus cardinalium bonos exhibuerunt: sicut et literæ legatorum, de consiliariis principum. Fiat itaque ex ea, quam diximus, materia (quæ certe fertilis est et copiosa) tractatus diligens et plenus. Neque vero volumus, ut characteres isti in ethicis (ut fit apud historicos, et poëtas, et in sermonibus communibus) excipiantur, tanquam imagines civiles integræ; sed potius ut imaginum ipsarum lineæ et ductus magis simplices; quæ inter se compositæ et commixtæ quascunque effigies constituunt: quot et quales eæ sunt, et quomodo inter se connexæ et subordinatæ; ut fiat tanquam artificiosa et accurata ingeniorum et animorum dissectio, atque ut dispositionum, in hominibus individuis, secreta prodantur, atque ex eorum notitia, curationum animi præcepta rectius institnantur.

Neque vero characteres ingeniorum, ex natura impressi, recipi tantum in hunc tractatum debent; sed et illi, qui alias animo imponuntur, et sexu, ætate, patria, valetudine, forma, et similibus: atque insuper illi, qui ex fortuna, veluti principum, nobilium, ignobilium, divitum, pauperum, magistratuum, idiotarum, felicium, ærumnosorum, et hujusmodi. Videmus enim, Plautum miraculi loco habere, quod senex quis sit beneficus; "benignitas hujus, ut adolescentuli est." D. autem Paulus, severitatem disciplinæ erga Cretenses præcipiens ("increpa eos dure") ingenium gentis ex poëta accusat, "Cretenses semper mendaces, malæ bestiæ, ventres pigri." Sallustius id in regum ingeniis notat, quod apud eos frequens sit contradictoria appetere: "Plerunque regiæ voluntates, ut vehementes sunt, sic mobiles, sæpeque ipsæ sibi adversæ." Tacitus observat, honores et dignitates ingenia hominum in deterius sæpius flectere, quam in melius; "solus Vespasianus mutatus est in melius." Pindarus illud animadvertit, fortunam subitam et indulgentem, animos plerunque enervare et solvere; "sunt, qui magnam felicitatem concoquere non possunt." Psalmus innuit, facilius esse modum adhibere et

temperamentum in fortunæ statu, quam in incremento: "Divitiæ si affluant, nolite cor apponere." De similibus quibusdam observationibus ab Aristotele in Rhetoricis mentionem obiter factam non inficior, nec non in aliorum scriptis nonnullis sparsim: verum nunquam adhuc incorporatæ fuerunt in moralem philosophiam; ad quam principaliter pertinent: non minus certe quam ad agriculturam, tractatus de diversitate soli et glebæ; aut ad medicinam, tractatus de complexionibus aut habitibus corporum diversis. Id autem nunc tandem fieri oportet, nisi forte imitari velimus temeritatem empiricorum, qui iisdem utuntur medicamentis ad ægrotos omnes, cujuscunque sint constitutionis.

Sequitur doctrinam de characteribus doctrina de affectibus et perturbationibus, qui loco morborum animi sunt, ut jam dictum est. Quemadmodum enim politici prisci de democratiis dicere solebant; quod populus esset mari ipsi similis, oratores autem ventis: quia sicut mare per se placidum foret et tranquillum, nisi a ventis agitaretur et turbaretur; sic et populus esset natura sua pacatus et tractabilis, nisi a seditiosis oratoribus impelleretur et incitaretur: similiter vere affirmari possit, naturam mentis humanæ sedatam fore, et sibi constantem, si affectus, tanquam venti, non tumultuarentur, ac omnia miscerent. Et hic rursus subiit nova admiratio, Aristotelem, qui tot libros de ethicis conscripsit, affectus, ut membrum ethicæ principale, in illis non tractasse; in rhetoricis autem, ubi tractandi interveniunt secundario (quatenus scilicet oratione cieri aut commoveri possint) locum illis reperisse (in quo tamen loco de iis, quantum tam paucis fieri potuit, acute et bene disseruit) nam disceptationes ejus de voluptate et dolore huic tractatui nullo modo satisfaciunt; non magis, quam qui de luce et lumine tantum scriberet, de particularium colorum natura scripsisse diceretur: siquidem voluptas et dolor erga affectus particulares ita se habent, ut lux erga colores. Meliorem certe in hoc argumento (quatenus ex his, quæ nunc extant, conjicere liceat) diligentiam adhibuerunt Stoici; attamen talem, quæ potius in definitionum subtilitate, quam in tractatu aliquo pleno et fuso, consisteret. Equidem reperio etiam libellos quosdam elegantes, de nonnullis ex affectibus; veluti de ira, de inutili verecundia, et aliis perpaucis. Sed si verum omnino dicendum sit, doctores hujus scientiæ præcipui sunt poëtæ et historici, in quibus ad vivum depingi et dissecari solet, quomodo affectus excitandi sunt et accendendi? quomodo leniendi et sopiendi? quomodo rursus continendi ac refrænandi, ne in actus erumpant? quomodo itidem se, licet compressi et occultati, prodant? quas operationes edant? quas vices subeant? qualiter sibi mutuo implicentur? qualiter inter se digladientur et opponantur? et innumera hujus generis. Inter quæ hoc ultimum plurimi est usus in moralibus et civilibus; qualiter (inquam) affectus affectum in ordinem cogat; et alterius auxilio, ad alterum subjugandum, uti liceat? Venatorum et aucupum more, qui bestiæ opera ad bestias, volueris alicujus ad volucres capiendas utuntur: quod fortasse aliter ex sese, absque brutorum auxilio, homo tam facile præstare non possit. Quin et hoc fundamento nititur excellens ille, et per omnia patens, usus in civilibus præmii et pœnæ; quæ rerumpublicarum columen sunt; cum affectus illi prædominantes formidinis et spei, alios omnes affectus noxios coërceant et supprimant. Etiam sicut in regimine status, non raro fit ut factio factione in officio contineatur; similiter fit et in regimine mentis interno.

Pervenimus nunc ad illa, quæ in nostra sunt potestate, quæque operantur in animum, voluntatemque et appetitum afficiunt et circumagunt; ideoque ad immutandos mores plurimum valent. Qua in parte debuerant philosophi strenue et gnaviter inquirere, De viribus et energia consuetudinis, exercitationis, habitus, educationis, imitationis, æmulationis, convictus, amicitiæ, laudis, reprehensionis, exhortationis, famæ, legum, librorum, studiorum, et si quæ sunt alia. Hæc enim sunt illa, quæ regnant in moralibus; ab istis, agentibus animus patitur et disponitur; ab istis veluti ingredientibus, confeciuntur pharmaca, quæ ad conservandam et recuperandam animi sanitatem conducant, quatenus remediis humanis id præstari possit. Ex quorum numero unum aut alterum seligemus, in quibus paululum immorabimur, ut reliquis sint exemplo. De consuetudine igitur et habitu, pauca delibabimus.

Opinio illa Aristotelis plane mihi videtur angustias quasdam contemplationis, et negligentiam sapere: cum asserit in illas actiones, quæ naturales sunt, consuetudinem nihil posse: exemplo usus, quod si lapis millies projicintur in altum, ne inclinationem quidem sponte ascendendi acquirit: quinetiam quod sæpius videndo, aut audiendo, nihilo melius aut videmus, aut audimus. Quamvis enim hoc teneat in aliquibus, ubi natura est peremptoria (cujus rei causas reddere in præsentia non vacat) aliter tamen in illis fit, in quibus natura, secundum latitudinem quandam, patitur intentionem et remissionem. Sane videre potuit, chirothecam paulo arctiorem, manui sæpius inducendo, laxiorem reddi; baculum usu et mora in contrarium flexus sui naturalis incurvari, et in eodem statu paulo post durare; vocem exercitando magis fieri robustam et sonoram; frigora æstumque consuetudine tolerari; et ejusdem generis complura. Quæ quidem posteriora duo exempla propius accedunt ad rem, quam quæ ab ipso adducta sunt. Attamen, utcunque hoc se habeat, quo magis verum fuerit, tam virtutes, quam vitia, in habitu consistere; eo magis ei contendendum fuerat, ut normas præscriberet, quomodo hujusmodi habitus fuerint acquirendi aut amovendi: plurima siquidem confici possint præcepta de prudenti institutione exercitationum, animi non minus, quam corporis. Illorum paucula recensebimus.

Primum erit, ut jam a principio caveamus a pensis, vel magis arduis, vel magis pusillis, quam res postulat: nam si oneris nimium imponatur, apud ingenium mediocre bene sperandi alacritatem obtundes; apud ingenium fiduciæ plenum opinionem concitabis, qua plus sibi polliceatur, quam præstare possit; quod secum trahit socordiam. In utroque autem ingenii temperamento fiet ut experimentum expectationi non satisfaciat: id quod animum semper dejicit, et confundit. Quod si pensa leviora

fuerint, magna inducitur, in progressionis summa, jactura.

Secundum erit, ut ad exercendam facultatem aliquam, quo habitus comparetur, duo imprimis tempora observentur: alterum, quando animus optime fuerit ad rem dispositus; alterum, quando pessime; ut ex priore, plurimum in via promoveamus: ex posteriore nodos obicesque animi contentione strenua deteramus, unde tempora media facile et placide labentur.

Tertium erit illud præceptum, cujus Aristoteles obiter meminit; "Ut totis viribus" (citra tamen vitium) "nitamur in contrarium illius, ad quod natura maxime impellimur:" sicut cum in adversum gurgitis remigamus; aut baculum incurvum, ut rectum fiat, in contrarium flectimus.

Quartum præceptum ex illo axiomate pendet, quod verissimum est; animum ad quæcunque felicius trahi et suavius, si illud, quo tendimus, in intentione operantis non sit principale, sed tanquam aliud agendo superetur; quoniam ita fert natura, ut necessitatem et imperium durum ferme oderit. Sunt et alia multa, quæ utiliter præcipi possint, de regimine consuetudinis; consuetudo enim, si prudenter et perite inducatur, fit revera (ut vulgo dicitur) altera natura: quod si imperite et fortuito administretur, erit tanquam simia naturæ, quæ nihil ad vivum imitetur, sed inscite tantum et deformiter.

Similiter si de libris, et studiis, eorumque ad mores virtute et influentia, verba facere vellemus; numnam desunt plurima præcepta et consilia fructuosa, eo spectantia? Annon unus ex patribus, magna cum indignatione, poësim appellavit "vinum dæmonum;" cum revera progignat plurimas tentationes, cupiditates et opiniones vanas? Annon prudens admodum, et digna, quæ bene perpendatur, est sententia Aristotelis, "Juvenes non esse idoneos moralis philosophiæ auditores:" quia in illis perturbationum æstuatio nondum sedata est, nec tempore et rerum experientia consopita? Atque ut verum dicamus, annon ideo fit, ut scriptorum priscorum præstantissimi libri et sermones (quibus ad virtutem homines efficacissime invitati sunt; tam augustam ejus majestatem omnium oculis repræsentendo, quam opiniones populares, in virtutis ignominiam, tanquam habitu parasitorum indutas derisui propinando) tam parum prosint ad vitæ honestatem, et mores pravos corrigendos, quia perlegi et revolvi non consueverunt a viris ætate et judicio maturis, sed pueris tantum et tironibus relinquuntur? Annon et hoc verum est, juvenes multo minus politicæ quam ethicæ auditores idoneos esse, antequam religione et doctrina de moribus et officiis plane imbuantur: ne forte judicio depravati et corrupti, in eam opinionem veniant, non esse rerum differentias morales veras et solidas sed omnia ex utilitate, aut successu metienda; sicut poëta canit:

"Prosperum et felix scelus virtus vocatur;"

et rursus,

"Ille crucem pretium sceleris tulit, hic diadema."

Ac poëtæ quidem hæc satirice et per indignationem loqui videntur: At libri nonnulli politici idem serio et positive supponunt. Sic enim Machiavello dicere placet, "Quod si contigisset Cæsarem bello superatum fuisse, Catilina ipso fuisset odiosior:" quasi vero nihil interfuisset, præter fortunam solam, inter furiam quandam, ex libidine et sanguine conflatam, atque animum excelsum, et inter homines naturales maxime omnium (si ambitio abfuisset) suspiciendum. Videmus etiam ex hoc ipso, quam necessarium sit, homines doctrinas pias et ethicas, antequam politicam degustent, plenis faucibus haurire: nimirum, quod qui in aulis principum, et negotiis civilibus, a teneris (ut ainut) unguiculis innutriti sunt, nunquam fere sinceram et internam morum probitatem assequantur: quanto minus si accesserit etiam librorum disciplina? Porro, et in documentis ipsis moralibus, vel saltem aliquibus eorum, annon cautio pariter est adhibenda, ne inde fiant homines pertinaces, arrogantes, et insociabiles? Juxta illud Ciceronis de M. Catone: "Hæc bona, quæ videmus, divina et egregia, ipsius scitote esse propria: quæ nonnunquam requirimus, ea sunt omnia non a natura, sed a magistris." Sunt et axiomata alia complura, de iis, quæ a studiis et libris hominum animis ingenerantur. Verum est enim quod dicit ille, "Abeunt studia in mores:" quod pariter affirmandum de cæteris illis rebus, convictu, fama, legibus patriis, et reliquis, quas paulo ante recensuimus.

Cæterum animi quædam est cultura, quæ adhuc magis accurata et elaborata videtur, quam reliquæ. Nititur autem hoc fundamento: quod omnium mortalium animi, certis temporibus, reperiantur in statu perfectiore; aliis, in statu magis depravato. Hujus igitur culturæ intentio fuerit et institutum, ut bona illa tempora foveantur; prava vero tanquam ex calendario deleantur et expungantur. Ac bonorum quidem temporum fixatio duobus modis procuratur: votis, aut saltem constantissimis animi decretis, et observantiis, atque exercitationibus: quæ non tantum in se valent quantum in hoc, quod animum in officio et obedientia jugiter contineant. Malorum temporum obliteratio duplici itidem ratione perfici potest: redemptione aliqua, vel expiatione præteritorum, et novo vitæ instituto, veluti de integro. Verum hæc pars ad religionem plane spectare videtur; nec mirum; cum moralis philosophia vera et genuina (sicut ante dictum est) ancillæ tantum vices erga theologiam suppleat.

Quamobrem, concludemus hanc partem de cultura animi cum eo remedio, quod omnium est maxime compendiosum et summarium, et rursus maxime nobile et efficax, quo animus ad virtutem efformetur, et in statu collocetur perfectioni proximo. Hoc autem est, ut fines vitæ actionumque deligamus, et nobis ipsis proponamus, rectos et virtuti congruos; qui tamen tales sint, ut eos assequendi nobis aliquatenus suppetat facultas. Si enim hæc duo supponantur; ut et fines actionum sint honesti et boni, et decretum animi de iis assequendis et obtinendis fixum sit et constans; sequetur ut continuo vertat et efformet se animus, una opera, in virtutes omnes. Atque hæc certe illa est operatio, quæ natura ipsius opus referat, cum reliquæ, quæ diximus, videantur esse solummodo sicut opera manus. Quemadmodum enim statuarius, quando simulacrum aliquod sculpit

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nut incidit, illius solummodo partis figuram effingit, circa quam manus occupata est, non autem cæterarum (veluti si fnciem efformet, corpus reliquum rude permanet et informe saxum, donec ad illud quoque pervenerit) e contra vero naturn, quando florem molitur, aut animal, rudimenta partium omnium simul parit et producit: eodem modo, quando virtutes habitu acquiruntur, dum temperantiæ incumbimus, ad fortitudinem, aut reliquas parum proficimus; quando autem rectis et honestis finibus nos dedicaverimus penitus et devoverimus, quæcunque fuerit virtus, qnam animo nostro commendaverint et imperaverint fines illi, reperiemus nos jamdudum imbutos, et prædispositos habilitate et propensione nonnulla ad eam assequendam et exprimendam. Atque hic possit esse status ille animi, qui egregie ab Aristotele describitur; et nb eo, non virtutis, sed divinitatis cujusdam charactere insignitur. Ipsa ejus verba hæc sunt: "Immanitati autem consentaneum est, opponere eam, quæ supra humanitatem est, heroicam sive divinam virtutem." Et paulo post, "Nam ut feræ neque vitium neque virtus est, sic neque Dei. Sed hie quidem stntus altius quiddam virtute est; ille aliud quiddam a vitio." Plinius certe secundus, ex licentia magniloquentiæ ethnicæ, Trajani virtutem, divinæ, non tanquam imitnmentum, sed tanquam exemplar, proponit, cum ait: "Opus non esse hominibus, alias ad Deos preces fundere, quam ut benignos æque et propitiosos se dominos mortalibus præstarent, ac Trsjanus præstitisset." Verum hæc profanam ethnicorum jactantiam sapiunt, qui umbras quasdam corpore majores prensabant. At religio vera, et sancta fides christiana, rem ipsam petit: imprimendo animis hominum chnritatem; quæ appositissime "vinculum perfectionis" appellatur, quia virtutes omnes simnl colligat, et revincit. Sane elegantissime dictum est a Menandro, de nmore sensuali, qui divinum illum perperam imitatur: amor melior sophista lævo, ad humanam vitam." Quibus innuit, morum decus melius ab amore efformari, quam a sophista et præceptore inepto, quem lævum appellat. Siquidem universis suis operosis regulis et præceptionibus hominem tam dextere et expedite effingere nequeat, ut se ipsum et in pretio habeat, et se belle in omnibus componat, quam amor facit. Sic proculdubio, si animus cujuspiam fervore charitatis veræ incendatur, ad majorem perfectionem evehetur, quam per universam ethicam doctrinam; qnæ sophistæ profecto habet rationem, si eum altera illa conferatur. Quinetiam, sicut Xenophon recte observavit, "Cæteros affectus, licet animum attollant, eum tamen distorquere et discomponere per ecstases et excessus suos: amorem vero solum, eum simul et dilatare et componere." Sic omnes aliæ humanæ, quas admiramur, dotes, dum naturam in majus exaltant, excessui interim sunt obnoxiæ: sola autem charitas non admittat excessum. Angeli, dum ad potentinm, divinæ parem, aspirarent, prævarieatisunt, et ecciderunt: "Ascendam et ero similis Altissimo." Homo, dum ad scientiam divinæ parem nspiraret, prævaricatus est, et lapsus: "Eritis sicut dii; scientes bonum et malum." Verum ad similitudinem divinæ bonitntis aut charitntis aspirando, nec Angelus, nec homo, unquam in periculum venit, ant veniet. Imo ad hanc ipsam imitationem etiam invitamur: "Diligite inimicos vestros, benefncite his, qui oderunt vos, et orate pro persequentibus et calumniantibus vos, ut sitis filii Patris vestri, qui in cœlis est, qui solem suum oriri facit super bonos et malos, et pluit super jnstos et injustos." Quin et in ipso archetypo naturæ divinæ, verba sic collocat religio ethnica ("optimus, mnximus;") Scriptura autem saera pronunciat; "Misericordia ejus super omnia opera ejus."

Hanc itaque moralis doctrinæ partem, de georgicis animi, jam absolvimus. In qua, si ex intuitu portionum ejus, quas perstrinximus, quis existimet, operam nostram in hoc tantummodo sitam esse, nt ea in artem seu doctrinam redigeremus, quæ ab aliis scriptoribus prætermissa sint, tanquam vulgata et obvia, et per se satis clara et perspicua; suo judicio libere utatnr. Interim illud meminerit, quod ab initio monuimus, propositum a nobis esse, non rerum pulchritudinem, sed usum et veritatem sectari. Recordetur etiam paulisper commentum illud parabolæ antiquæ, de geminis Somni portis:

> "Sunt geminæ Somni portæ, quarum altera fertur
> Cornea, qua veris facilis datur exitus umbris:
> Altera candenti perfecta nitens elephanto;
> Sed falsa ad cœlum mittunt insomnia manes."

Insignis sane magnificentia portæ eburneæ; tamen somnia vera per corneam commeant.

Additamenti vice poni possit circa doctrinam ethicam observatio illa; inveniri nimirum relationem et congruitatem quandam, inter bonum animi, et bonum corporis. Nam sicut bonum corporis constnre diximus ex sanitate, pulchritudine, robore, nc voluptate; sic animi bonum, si jnxta moralis doctrinæ scita illnd contemplemur, huc tendere perspiciemus, ut animum reddat sanum, et a perturbationibus immunem; pulchrum, verique decoris ornamentis excultum; fortem, ac agilem ad omnin vitæ mnnia obeundn; denique non stupidum, sed voluptatis et solatii honesti sensum vivide retinentem. Hæc autem, sicut in corpore, ita et in animo raro simul omnia conjunguntur. Facile enim videre est multos, ingenii viribus et fortitudine animi pollentes, quos infestant tamen perturbntiones; quorumque etiam moribus vix aliquid elegantiæ aut venustatis aspergitur: alios, quibus abunde est in moribus elegantiæ et venustatis, illis tamen non suppetit, aut probitas animi, ut velint, aut vires, nt possint recte agere: alios, animo præditos honesto, atque a vitiurum labe repnrgato, qni tamen nec sibi ipsis ornamento sunt, nec reipublicæ utiles: alios, qui istorum fortasse trium compotes sunt, sed tamen Stoica quadam tristitia et stupiditate præditi, virtutis quidem actiones exercent, gaudiis non perfruuntur. Quod si contingat, ex quatuor istis duo aut tria aliquando concurrere, rnrissime tamen fit, qnemadmodum diximus, ut omnia. Jam vero principale istnd membrum philosophiæ humanæ, quæ hominem contemplatur, quatenus ex corpore consistit atque anima, sed tamen segregatum, et citra societatem, a nobis pertractatum est.

FRANCISCI

BARONIS DE VERULAMIO, VICE-COMITIS SANCTI ALBANI,

DE

DIGNITATE ET AUGMENTIS SCIENTIARUM.

LIBER OCTAVUS.

AD REGEM SUUM.

CAPUT PRIMUM.

Partitio doctrinæ civilis, in doctrinam de conversatione; doctrinam de negotiis; et doctrinam de imperio, sive republica.

Vetus est narratio, rex optime, convenisse complures philosophos solenniter, coram legato regis exteri, atque singulos pro virili parte sapientiam suam ostentasse; ut haberet legatus, quæ referret de mirabili sapientia Græcorum. Unus tamen ex eorum numero silebat, et nihil adducebat in medium: adeo ut legatus ad eum conversus diceret; "Tu vero quid habes, quod referam?" Cui ille; "Refer" inquit "regi tuo, te invenisse apud Græcos aliquem, qui tacere sciret." Equidem oblitus eram, in hac artium synopsi, artem tacendi interserere: quam tamen (quoniam plerunque desideretur) exemplo jam proprio docebo. Etenim, cum me tandem ordo rerum ad illud deduxerit, ut paulo post de arte imperii tractandum sit, cumque ad tantum regem scribam, qui perfectus adeo in ea arte sit magister, ipsamque ab incunabulis suis hauserit: nec omnino immemor esse possim, qualem apud majestatem tuam locum sustinuerim: consentaneum magis existimavi, me ipsum tacendo de hac re, apud majestatem tuam, quam scribendo, probare. Cicero vero, non solum artis, verum etiam eloquentiæ cujusdam, quæ in tacendo reperiatur, meminit. Cum enim sermones nonnullos suos, cum alio quodam, ultro citroque habitos, in epistola quadam ad Atticum commemorasset, sic scribit: "Hoc loco, sumpsi aliquid de tua eloquentia; nam tacui." Pindarus vero (cui illud peculiare est, animos hominum inopinato, sententiola aliqua mirabili, veluti virgula divina, percutere) hujusmodi quidpiam ejaculatur: "Interdum magis afficiunt non dicta, quam dicta." In hac parte igitur, tacere, aut, quod silentio proximum est, brevis admodum esse decrevi. Verum, antequam ad artes imperii perveniam, haud pauca de aliis doctrinæ civilis portionibus sunt præmittenda.

Scientia civilis versatur circa subjectum, quod cæterorum omnium maxime est materiæ immersum: ideoque difficillime ad axiomata reducitur. Sunt tamen nonnulla, quæ hanc difficultatem levant. Primo enim, quemadmodum Cato ille censorius de Romanis suis dicere solitus est: "Ovibus eos similes esse, quarum gregem integrum minore quis molestia ageret, quam unam aliquam: quoniam si pauca ex grege, ut rectam ineant viam, propellere possis, cæteræ ultro sequentur." Similiter, hoc quidem respectu, ethicæ munus est quodammodo illo politicæ difficilius. Secundo proponit sibi ethica, ut animus bonitate interna imbuatur, et cumuletur: at civilis scientia nihil amplius postulat præter bonitatem externam: hæc enim ad societatem sufficit. Itaque non raro accidit, ut regimen sit bonum, tempora mala: siquidem in sacra historia illud non semel occurrit (cum de regibus bonis et piis narretur) "sed adhuc populus non direxerat cor suum ad Dominum Deum patrum suorum." Itaque, et hoc quoque respectu, duriores partes sunt ethicæ. Tertio, hoc habent respublicæ, ut tanquam machinæ grandiores tardius moveantur, nec sine magno molimine; unde haud tam cito labefactantur: sicut enim in Ægypto septem anni fertiles, steriles septem sustentarunt; ita in rebuspublicis priorum temporum bona institutio efficit, ut sequentium errores non statim perniciem inferant: at singulorum hominum decreta, et mores, magis subito subverti solent. Hoc denique ethicam gravat, politicæ succurrit.

Scientia civilis tres habet partes, juxta tres societatis actiones summarias; doctrinam de conversatione; doctrinam de negotiis; et doctrinam de imperio sive republica; tria siquidem sunt bona, quæ ex societate civili homines sibi parare expetunt: solamen contra solitudinem, adjumentum in negotiis, et protectio contra injurias. Suntque istæ tres prudentiæ plane inter se diversæ, et sæpenumero disjunctæ; prudentia in conversando, prudentia in negotiando, et prudentia in gubernando.

Enimvero, quod ad conversationem attinet, illa certe affectata esse non debet, at multo minus neglecta; cum prudentia in ejus moderamine, et decus quoddam morum in se ipsa præ se ferat, et ad negotia, tam publica, quam privata, commode administranda, plurimum juvet. Etenim sicut ætio oratori

tanti habetur (licet sit externum quiddam) ut etiam illis alteris partibus, quæ graviores et interiores videntur, anteponatur; eodem fere modo, in viro civili, conversatio, ejusque regimen (utcunque in exterioribus occupetur) si non summum, at certe eximium locum invenit. Quale enim pondus habet vultus ipse, ejusque compositio? Recte poëta:

"— Nec vultu destrue verba tuo."

Poterit enim quis vim orationis vultu labefactare, et plane prodere. Quin et facta, non minus quam verba, vultu pariter destrui possint, si Ciceroni credamus; qui, cum fratri affabilitatem commendaret erga provinciales, non in hoc eam potissimum sitam dixit, ut aditus præberet ad se faciles, nisi etiam vultu ipso comiter accedentes exciperet. "Nil interest habere ostium apertum, vultum clausum." Videmus quoque Atticum, sub primum Ciceronis cum Cæsare congressum, bello adhuc fervente, diligenter et serio Ciceronem per epistolam monuisse, de vultu et gestu ad dignitatem et gravitatem componendis. Quod si tantum possit oris et vultus solius moderatio, quanto magis sermo familiaris, et alia, quæ ad conversationem pertinent? Atque sane summa et compendium decori et elegantiæ morum in hoc fere sita sunt, ut quasi æqua lance et propriam dignitatem et aliorum metiamur et tueamur: quod etiam non male expressit T. Livius (licet alii rei intentus) eo personæ charactere: "Ne," inquit, "aut arrogans videar, aut obnoxius: quorum alterum est alienæ libertatis obliti, alterum suæ." Ex contraria vero parte, si urbanitati et elegantiæ morum externæ impensius studeamus, transeunt illæ in affectationem quandam deformem et adulterinam. "Quid enim deformius quam scenam in vitam transferre?" Quinetiam, licet in excessum illum vitiosum minime prolabantur, temporis tamen nimium in hujusmodi leviculis absumitur, animusque ad curam ipsarum, magis quam oportet, deprimitur. Ideoque sicut in academiis, adolescentes literarum studiosi, at sodalium congressibus plus satis indulgentes, moneri soleant a præceptoribus, "Amicos esse fures temporis:" sic certe assidua ista, in conversationis decorum, animi intentio, magnum gravioribus meditationibus furtum facit. Deinde, qui primas adeo in urbanitate obtinent, et ad hanc rem unam quasi nati videntur, hoc fere habent, ut sibi ipsis in illa sola complaceant, et ad virtutes solidiores et celsiores vix unquam aspirent: quando e contra, qui sibi in hac parte defectus sunt conscii, decus ex bona existimatione quærunt: ubi enim adest bona existimatio, omnia fere decent; ubi vero illa deficit, tum demum a commoditate morum atque urbanitate subsidium petendum est. Porro, ad res gerendas, vix gravius aut frequentius reperias impedimentum, quam hujusce decori externi curiosam nimis observationem, atque illud alterum, quod huic ipsi inservit; nimirum, anxiam temporis atque opportunitatem electionem. Egregie enim Salomon: "Qui respicit ad ventos, non seminat; qui respicit ad nubes, non metit." Creanda siquidem nobis est opportunitas sæpius quam opperienda. Ut verbo dicamus, urbana ista morum compositio, veluti vestis animi est, et proinde vestis commoditates referre debet. Primum enim talis esse debet, ut sit in usu communi: rursus, ut non sit nimis delicata aut sumptuosa: deinde, ita confici-enda, ut si qua sit in animo virtus, eam exhibeat maxime conspicuam; si qua deformitas, eandem suppleat et occultet: postremo, et super omnia, ne sit nimis arcta, atque ita animum angustet, ut ejusdem motus in rebus gerendis cohibeat et impediat. Verum hæc pars scientiæ civilis de conversatione eleganter profecto a nonnullis tractata est, neque ullo modo tanquam desiderata reponi debet.

CAPUT SECUNDUM.

Partitio doctrinæ de negotiis, in doctrinam de occasionibus sparsis, et doctrinam de ambitu vitæ. Exemplum doctrinæ de occasionibus sparsis, ex parabolis aliquibus Salomonis. Præcepta de ambitu vitæ.

Doctrinam de negotiis partiemur in doctrinam de occasionibus sparsis, et doctrinam de ambitu vitæ: quarum altera universam negotiorum varietatem complectitur, et vitæ communis tanquam amanuensis est; altera, ea tantum, quæ ad propriam cujusque fortunam amplificandam spectant, excerpit, et suggerit; quæ singulis pro intimis quibusdam rerum suarum tabellis aut codicillis esse possint. Verum antequam ad species descendamus, aliquid circa doctrinam de negotiis in genere præfabimur. Doctrinam de negotiis, pro rei momento, tractavit adhuc nemo; cum magna, tam literarum, quam literatorum, existimationis jactura. Ab hac enim radice pullulat illud malum, quod notam eruditis inussit; nimirum, eruditionem et prudentiam civilem raro admodum conjungi. Etenim si quis recte advertat, ex prudentiis illis tribus, quas modo diximus ad vitam civilem spectare, illa conversationis ab eruditis fere contemnitur, tanquam servile quiddam, atque insuper meditationibus inimicum. Quod vero ad illam de republica administranda; sane si quando rerum gubernaculis admoveantur eruditi, munus suum non incommode sustinent; verum ea promotio contingit paucis. De prudentia autem negotiandi (qua de nunc loquimur) in qua vita humana plurimum versatur, nulli omnino libri conscripti habentur; præter pauca quædam monita civilia in fasciculum unum aut alterum collecta, quæ amplitudini hujus subjecti nullo modo respondent. Etenim si libri aliqui extarent de hoc argumento, sicut de cæteris, minime dubitaverim, quin viri eruditi, aliquo experientiæ manipulo instructi, ineruditos, licet diutina experientia edoctos, longe superarent, et proprio illorum (quod dicitur) aere usi, magis e longinquo ferirent.

Neque vero est cur vereamur, ne scientiæ hujus tam varia sit materia, ut sub præceptionibus non cadat: multo siquidem angustior est, quam illa reipublicæ administrandæ scientiæ; quam tamen apprime videmus excultam. Hujus generis prudentiæ apud Romanos, optimis temporibus, extitisse videntur nonnulli professores. Testatur enim Cicero moris fuisse, paulo ante sua secula, ut senatores, prudentia et rerum usu maxime celebres (Coruncanii, Curii, Lælii, et alii) statis horis in foro deambularent, ubi civibus copiam sui faceret et consule-

rentur, non de jure, sed de negotiis omnigenis: veluti de filia elocanda, sive de filio educando, sive de prædio coëmendo, de contractu, accusatione, defensione, aut alia quacunque re, quæ in vita communi interveniat. Ex quo liquet, prudentiam quandam esse consilium dandi, etiam in negotiis privatis, ex universali rerum civilium cognitione et experientia promanantem; quæ exerceatur quidem in casibus particularibus, extrahatur autem ex generali casuum consimilium observatione. Sic enim videmus in eo libro, quem ad fratrem conscripsit Q. Cicero "De petitione consulatus" (quem unicum a veteribus habemus, quantum memini, tractatum de negotio aliquo particulari) quanquam ad consilium dandum, de re tum præsenti, potissimum spectaret, plurima tamen contineri axiomata politica, quæ non usum solum temporarium, sed normam quandam perpetuam circa electiones populares præscribant. In hoc genere autem nihil invenitur, quod ullo modo comparandum sit cum aphorismis illis, quos edidit rex Salomon; de quo testatur Scriptura "cor illi fuisse instar arenæ maris:" sicut enim arenæ maris universas orbis oras circundant, ita et sapientia ejus omnia humana, non minus, quam divina complexa est. In aphorismis vero illis, præter alia magis theologica, reperies liquido haud pauca præcepta et monita civilia præstantissima, ex profundis quidem sapientiæ penetralibus scaturientia, atque in amplissimum varietatis campum excurrentia. Quoniam vero doctrina de occasionibus sparsis (quæ doctrinæ de negotiis portio est prior) inter desiderata reponimus, ex more nostro paulisper in illa immorabimur: atque exemplum ejusdem, ex aphorismis sive parabolis illis Salomonis desumptum, proponemus. Neque vero quis, ut arbitramur, nos merito sugillare possit, quod ex scriptoribus Sacræ Scripturæ aliquem ad sensum politicum trahamus: equidem existimo, si extarent commentarii illi Salomonis ejusdem, de natura rerum (in quibus "de omni vegetabili, a musco super murum ad cedrum Libani," itemque de animalibus, conscripsit) non illicitum esse, eos secundum sensum naturalem interpretari: quod idem nobis licebat in politicis.

EXEMPLUM PORTIONIS DOCTRINÆ DE OCCASIONIBUS SPARSIS, EX PARABOLIS ALIQUIBUS SALOMONIS.

PARABOLA I.

"Mollis responsio frangit iram."

EXPLICATIO.

Si incendatur ira principis vel superioris adversus te, et tuæ jam sint loquendi partes, duo præcipit Salomon: alterum ut fiat responsio, alterum ut eadem sit mollis. Prius continet tria præcepta. Primo, ut caveas a silentio tristi et contumaci: illud enim aut culpam totam in te recipit, ac si nihil habeas, quod respondere possis; aut dominum occultæ iniquitatis insimulat, ac si aures ejus, defensioni licet justæ, non paterent. Secundo, ut caveas a re comprehendinanda, neque tempus aliud ad defensionem postules: hoc enim aut eandem notam inurit, quam prius (nimirum dominum tuum nimia mentis perturbatione efferri) aut plane significat, te artificiosam quandam defensionem meditari, cum in promptu nihil habeas: adeo ut optimum semper fuerit, aliquid in præsentia, et e re nata, in excusationem tui adducere. Tertio, ut fiat prorsus responsio: responsio, inquam, non mera confessio, aut mera submissio, sed aliquid apologiæ et excusationis inspergatur: neque enim aliter tutum est facere, nisi apud ingenia valde generosa et magnanima; quæ rara admodum sunt. Sequitur posteriore loco, ut responsio sit mollis, minime præfracta aut aspera.

PARABOLA II.

"Servus prudens dominabitur in filium stultum; et partietur hæreditatem inter fratres."

EXPLICATIO.

In omni familia turbata et discordi, semper exurgit aliquis servus, aut humilis amicus, præpotens, qui pro arbitro se gerat, ad lites familiæ componendas; cuique, eo nomine, et familia tota et dominus ipse sint obnoxii. Ille, si suam rem agat, familiæ mala fovet et aggravat; sin fidelis revera fuerit et integer, plurimum certe meretur: adeo ut etiam tanquam inter fratres haberi debeat, aut saltem procurationem hæreditatis accipere fiduciariam.

PARABOLA III.

"Vir sapiens, si cum stulto contenderit, sive irascatur, sive rideat, non inveniet requiem."

EXPLICATIO.

Monemur sæpius, ut congressum imparem fugiamus; eo sensu, ne cum potioribus decertemus. At haud minus utile est monitum, quod hic exhibet Salomon, Ne cum indigno contendamus. Iniqua enim prorsus sorte hæc res transigitur. Siquidem si superiores simus, nulla sequitur victoria; si superemur, magna indignitas. Neque juvat etiam, in hujusmodi contentione exercenda, si interdum veluti per jocum agamus, interdum cum fastu et contemptu. Nam quocumque nos vertamus, leviores inde efficiemur, neque commode nos explicabimus. Pessime autem fit, si hujusmodi persona, quacum contendimus (ut Salomon loquitur) aliquid affine habeat cum stulto; hoc est, si sit audaculus et temerarius.

PARABOLA IV.

"Sed et cunctis sermonibus, qui dicuntur, ne accommodes aurem tuam, ne forte audias servum tuum maledicentem tibi."

EXPLICATIO.

Vix credi possit, vitam quantum perturbet inutilis curiositas circa illas res, quæ nostra intersunt: nimirum, quando secreta illa rimari satagimus, quæ detecta et inventa ægritudinem quidem animo inferant, ad consilia autem expedienda nihil juvent. Primo enim sequitur animi vexatio et inquietudo, cum humana omnia perfidiæ et ingratitudinis plena sint. Adeo ut, si comparari possit speculum aliquod magicum, in quo odia et quæcunque contra nos ullibi commoventur, intueri possemus, melius nobis foret, si protinus projiceretur et collideretur. Hujusmodi enim res, veluti foliorum murmura sunt, et brevi

evanescunt. Secundo curiositas illa animum suspicionibus nimiis onerat; quod consiliis inimicissimum est, eaque reddit inconstantia et complicata. Tertio eadem, mala ipsa sæpissime figit, alias prætervolatura: grave enim est conscientias hominum irritare; qui, si latere se putent, facile mutantur in melius, sin deprehensos se sentiant, malum malo pellunt. Merito igitur summæ prudentiæ tribuebatur Pompeio Magno, quod Sertorii chartas universas, nec a se perlectas, nec aliis permissas, igni protinus dedisset.

PARABOLA V.

"Advenit veluti viator pauperies, et egestas quasi vir armatus."

EXPLICATIO.

Eleganter describitur in parabola, quomodo prodigis et circa rem familiarem incuriosis, superveniant naufragia fortunarum. A principio enim pedetentim et passibus lentis, instar viatoris, advenit obæratio et sortis diminutio, neque fere sentitur: At non multo post invadit egestas, tanquam vir armatus, manu scilicet tam forti et potente, ut ei amplius resisti non possit: cum apud antiquos recte dictum sit, necessitatem ex omnibus rebus esse fortissimum. Itaque viatori occurrendum, contra armatum muniendum.

PARABOLA VI.

"Qui erudit derisorem, ipse sibi injuriam facit; et qui arguit impium, sibi maculam generat."

EXPLICATIO.

Congruit cum præcepto Salvatoris, ut non mittamus "margaritas nostras ante porcos." Distinguuntur autem in hac parabola actiones præceptionis, et reprehensionis; distinguuntur itidem personæ derisoris, et impii; distinguitur postremo id, quod rependitur. In priore enim rependitur opera lusa; in posteriore etiam et macula. Cum enim quis erudit et instituit derisorem, jactura primum fit temporis; deinde et alii conatum irrident, tanquam rem vanam, et operam male collocatam; postremo derisor ipse scientiam, quam didicit, fastidio habet. At majore cum periculo transigitur res in reprehensione impii; quia non solum impius non auscultat; sed et cornua obvertit, et reprehensorem, odiosum sibi jam factum, aut confestim convitiis proscindit, aut saltem postea apud alios criminatur.

PARABOLA VII.

"Filius sapiens lætificat patrem: filius vero stultus mœstitiæ est matri suæ."

EXPLICATIO.

Distinguuntur solatia atque ægritudines œconomicæ, patris videlicet et matris, circa liberos suos. Etenim filius prudens et frugi, præcipuo solatio est patri, qui virtutis pretium melius novit, quam mater; ac propterea filii sui indoli, ad virtutem propensæ, magis gratulatur: quinetiam gaudium illi fortasse affert institutum suum, quod filium tam probe educarit, illique honestatem morum, præceptis et exemplo, impresserit. E contra mater calamitati filii plus compatitur et indolet; tum ob affectum maternum magis mollem et tenerum; tum fortasse indulgentiæ suæ conscia, qua eum corruperit et depravaverit.

PARABOLA VIII.

"Memoria justi cum laudibus; at nomen impiorum putrescet."

EXPLICATIO.

Distinguitur inter famam virorum bonorum et malorum, qualis esse soleat post obitum. Viris enim bonis, extincta invidia (quæ famam eorum, dum vixerant, carpebat) nomen continuo efflorescit, et laudes magis indies invalescunt: at viris malis (licet fama eorum, per gratiam amicorum et factionis suæ hominum, ad breve tempus manserit) paulo post fastidium nominis oboritur, et postremo laudes illæ evanidæ in infamiam, et veluti in odorem gravem et tetrum, desinunt.

PARABOLA IX.

"Qui conturbat domum suam, possidebit ventos."

EXPLICATIO.

Utile admodum monitum, de discordiis et turbis domesticis. Plurimi enim, ex dissidiis uxorum, aut exhæredationibus filiorum, aut mutationibus frequentibus familiæ, magna sibi spondent; ac si inde, vel animi tranquillitas, vel rerum suarum administratio felicior, sibi obventura foret. Sed plerunque abeunt spes suæ in ventos. Etenim, tum mutationes illæ, ut plurimum, non cedunt in melius; tum etiam perturbatores isti familiæ suæ, molestias varias, et ingratitudinem eorum, quos, aliis præteritis, adoptant et deligunt, sæpenumero experiuntur. Quin et hoc pacto rumores sibi progignunt non optimos, et famas ambiguas: neque enim male a Cicerone notatum est; Omnem famam a domesticis manare. Utrumque autem malum per ventorum possessionem eleganter a Salomone exprimitur: nam et expectationis frustratio, et rumorum suscitatio, ventis recte comparantur.

PARABOLA X.

"Melior est finis orationis, quam principium."

EXPLICATIO.

Corrigit parabola errorem frequentissimum, non solum apud eos, qui verbis præcipue student, verum etiam apud prudentiores. Is est, quod homines de sermonum suorum aditu atque ingressu magis sint solliciti, quam de exitu; et accuratius exordia et præfatiunculas meditentur, quam extrema orationum. Debuerant autem nec illa negligere, et ista, ut longe potiora, præparata et digesta apud se habere; revolventes secum, et, quantum fieri potest, animo prospicientes, quis tandem exitus sermonis sit futurus, et quomodo negotia inde promoveri et maturari possint. Neque hic finis. Quinimo non epilogos tantum, et sermonum, qui ad ipsa negotia spectant, egressus meditari oportet; verum etiam et illorum sermonum cura suscipienda, quos sub ipsum discessum commode et urbane injicere possint, licet a negotio

prorsus alienos. Equidem cognovi consiliarios duos, viros certe magnos, et prudentes, et quibus onus rerum tunc præcipue incumbebat; quibus illud fuit perpetuum et proprium, ut quoties cum principibus suis de negotiis ipsorum communicarent; colloquia in rebus ad ipsa negotia spectantibus nunquam terminarent; verum semper aut ad jocum, aut aliud aliquid, quod audire erat volupe, divertieula quærerent; atque, ut adagio dicitur, "sermones marinas aqua fluviatili sub extremum adhærent." Neque hoc illis inter artes postremum erat.

PARABOLA XI.

"Sicut museæ mortuæ fœtere faciunt unguentum optimum, sic hominem pretiosum sapientia et gloria, parva stultitia."

EXPLICATIO.

Iniqua admodum et misera est conditio hominum virtute præcellentium (ut optime notat parabola) quia erroribus eorum, quantumvis levissimis, nullo modo ignoscitur. Verum, quemadmodum in gemma, valde nitida, minimum quodque granulum, aut nubecula, oculos ferit, et molestia quadam afficit; quod tamen si in gemma vitiosiore repertum foret, vix notam subiret: similiter in viris singulari virtute præditis, minima quæque vitia statim in oculos et sermones hominum incurrunt, et censura perstringuntur graviore; quæ in hominibus mediocribus aut omnino laterent, aut veniam facile reperirent. Itaque viro valde prudenti parva stultitia; valde probo parvum peccatum; urbano et moribus eleganti, paululum indecori, de fama et existimatione multum detrahit. Adeo ut non pessimum foret viris egregiis, si nonnulla absurda (quod citra vitium fieri possit) actionibus suis immiscerent, ut libertatem quandam sibi retinerent, et parvorum defectuum notas confundant.

PARABOLA XII.

"Homines derisores civitatem perdunt, sapientes vero avertunt calamitatem."

EXPLICATIO.

Mirum videri possit, quod in descriptione hominum, qui ad respublicas labefactandas et perdendas veluti natura comparati et facti sunt, delegerit Salomon charaeterem; non hominis superbi et insolentis; non tyrannici et crudelis; non temerarii et violenti; non impii et scelerati; non injusti et oppressoris; non sedi tiosi et turbulenti; non libidinosi et voluptarii; non denique insipientis et inhabilis; sed derisoris. Verum hoc sapientia ejus regis, qui rerumpublicarum conservationes et eversiones optime norat, dignissimum est. Neque enim similis fere est pestis regnis et rebuspublicis, quam si consiliarii regum, aut senatores, quique gubernaculis rerum admoventur, sint ingenio derisores. Hujusmodi enim homines, periculorum magnitudinem, ut fortes videantur senatores, semper extenuant; iisque, qui pericula, prout par est, ponderant, veluti timidis insultant: consultandi et deliberandi maturas moras, et meditatas disceptationes, veluti rem oratoriam, et trædii plenam, et ad summas rerum nihil faeientem, subsannant: famam, ad quam principum consilia præcipue sunt componenda, ut salivam vulgi, et rem cito prætervolaturam, contemnunt: legum vim et auctoritatem, ut reticula quædam, quibus res majores minime cohiberi debeant, nil morantur: consilia et præcautiones in longum prospicientes, ut somnia quædam, et apprehensiones melancholicas, rejiciunt: viris revera prudentibus et rerum peritis, atque magni animi et consilii, dieteriis et facetiis illudunt: denique fundamenta omnia regiminis politiei simul labefactant. Quod magis attendendum est, quia cunieulis et non impetu aperto, hæc res agitur: neque cœpit esse inter homines (prout meretur) suspecta.

PARABOLA XIII.

"Princeps, qui libenter præbet aures verbis mendacii, omnes servos habet improbos."

EXPLICATIO.

Cum princeps iste fuerit, ut susurronibus, et sycophantis absque judicio faciles et credulas aures præbeat, spirat omnino, tanquam a parte regis, aura pestilens, quæ omnes servos ejus corrumpit et inficit. Alii metus principis rimantur, eosque narrationibus fictitiis exaggerant; alii invidiæ furias conciant, præsertim in optimos quosque: alii criminationibus aliorum proprias sordes et conscientias malas eluunt: alii amicorum suorum honoribus et desideriis velificant, competitores eorum calumniando et mordendo: alii fabularum argumenta, contra inimicos suos, tanquam in scena, componunt: et innumera hujusmodi. Atque hæc illi, qui ex servis principis ingenio sunt magis improbo. At illi etiam, qui natura probiores sunt et melius morati, postquam in innocentia sua parum præsidii esse senserint (quoniam princeps vera a falsis distingnere non novit) morum suorum probitatem exuunt, et ventos anlicos captant, iisque servilem in modum circumferuntur. "Nil enim" ut ait Tacitus de Claudio, "tutum est apud principem, cujus animo omnia sunt tanquam indita et jussa." Atque bene Comincus; "Præstat, servum esse principis, cujus suspicionum non est finis, quam ejus, cujus credulitatis non est modus."

PARABOLA XIV.

"Justus miseretur animæ jumenti sui; sed miseri cordiæ impiorum crudeles."

EXPLICATIO.

Inditus est, ab ipsa natura, homini misericordiæ affectus nobilis et excellens; qui etiam ad animalia bruta extenditur; quæ ex ordinatione divina ejus imperio subjiciuntur. Itaque habet ista misericordia analogiam quandam cum illa principis erga subditos. Quinetiam illud certissimum est, quod quo dignior est anima, eo pluribus compatiatur. Etenim animæ angustæ et degeneres hujusmodi res ad se nihil pertinere putant: at illa, quæ nobilior est portio universi, ex communione afficitur. Quare videmus, sub veteri lege haud panea fuisse præcepta, non tam mere ceremonialia, quam misericordiæ institutiva: quale fuit illud, de non comedendo carnem cum sanguine

ejus, et similia. Etiam in sectis Essæorum et Pythagoræorum, ab esu animalium omnino abstinebant. Quod etiam hodie obtinet (superstitione inviolata) apud incolas nonnullos imperii Mogollensis. Quin et Turcæ (gens licet et stirpe et disciplina erudelis et sanguinaria) brutis tamen eleemosynas largiri solent; neque animalium vexationes et torturas fieri sustinent. Verum, ne forte hæc, quæ diximus, omnis generis miserieordiæ patrocinari videantur, salubriter subjungit Salomon impiorum misericordias esse crudeles. Eæ sunt, quando hominibus sceleratis et facinorosis pareitur, justitiæ gladio feriendis: erudelior enim hujusmodi miserieordia, quam crudelitas ipsa. Nam crudelitas exereetur in singulos: at misericordia illa universum facinorosorum exercitum, eoncessa impunitate, in homines innocentes armat et immittit.

PARABOLA XV.

" Totum spiritum suum profert stultus; at sapiens reservat aliquid in posterum."

EXPLICATIO.

Corrigit parabola præcipue (ut videtur) non hominum vanorum futilitatem, qui dicenda taeenda, facile proferunt: non parrhesiam illam, qua absque discrimine et judicio in omnes et omnia involant: non garrulitatem, qua ad nauseam usque aliis obstrepunt: sed vitium aliud magis occultum; nempe sermonis regimen minime omnium prudens et politicum; hoc est, cum quis ita sermonem (in colloquiis privatis) instituit, ut quæcunque in animo habeat, quæ ad rem pertinere putet, simul et tanquam uno spiritu, et orstione continuata proferat. Hoc enim plurimum negotiis officit. Siquidem primo, oratio intercisa, et per partes infusa, longe magis penetrat, quam continuata; quoniam in eontinuata pondus rerum non distincte et sigillatim excipitur, nee per moram nonnullam insidet, sed ratio rationem, antequam penitus insederit, expellit. Secundo, nemo tam potenti et feliei eloquentia valet, ut primo sermonis impetu enm, quem alloquitur, mutum et elinguem plane reddat; quin et alter aliqnid vieissim respondebit, et fortasse objiciet: tum vero accidit, ut quæ in refutationem aut replicationem reservanda fuissent, præmissa jam et antea delibata, vires suas et gratiam amiserint. Tertio, si qnis ea, quæ dieenda sunt, non simul effundat, sed per partes eloquatur, aliud primo, aliud snbinde injiciens; sentiet ex ejus, qnem alloquitur, vultu et responso, qnomodo singula illum affecerint, quam in partem aecepta fuerint; ut qnæ adhue restant dicenda, eantius ant supprimat aut excerpat.

PARABOLA XVI.

" Si spiritus potestatem habentis aseenderit super te, locum tuum ne dimiseris; quia curatio faciet eessare magna peccata."

EXPLICATIO.

Præcipit parabola, quomodo se quis gerere debeat, eum iram atque indignationem principis incurrerit. Præceptum duplex: primo, ut non dimittat locnm suum: secundo, ut eurationi, tanqnam in morbo aliquo gravi, diligenter et caute attendat. Consueverunt enim homines, postquam commotos contra se principes suos senserint, partim ex dedeeoris impatientis, partim ne vulnus observando refricent, partim ut tristitiam et humilitatem eorum principes sui perspieiant, se a muneribus et funetionibus suis subducere; quinetiam interdum ipsos magistratus et dignitates, quas gerunt, in principum manus restituere. At Salomon hanc medendi viam, veluti noxiam, improbat; idque summa profecto ratione. Primo enim, dedecus ipsum nimis illa publicat; unde tum inimici atque invidi audaciores fiunt ad lædendum; tum amici timidiores ad subveniendum. Secundo, hoc paeto fit, ut prineipis ira, quæ fortasse, si non evulgaretur, sponte eoncideret, magis figatur, et veluti prineipio jam faeto hominis deturbandi, in præcipitium illius feratur. Postremo, secessus iste aliquid sapit ex malevolo, et temporibus infenso; id qaod malum indignationis malo snspicionis eumulat. Ad eurationem autem pertinent ista. Primo, caveat ante omnia, ne stupiditate quadam, aut etiam animi elatione, indignationem principis minime sentire, aut inde, prout debeat, affici, videatur: hoc est ut et vultum, non ad tristitiam eontumaeem, sed ad mœstitiam gravem atqae modestam componat: et in rebus quibuscunque agendis se minus solito hilarem et lætum ostendat: quin et in rem suam erit, amici alieujus opera et sermone apud principem uti, qui quanto doloris sensu in intimis exerucietur, tempestive insinuet. Secundo, oceasiones omnes vel minimas sedulo evitet, per quas aut res ipsa, quæ indignationi causam præbuit, refrieetur, aut princeps denuo exeandescendi, et ipsum, quacunque de eausa, eoram aliis objurgandi, ansam arripiat. Tertio, perquirat etiam diligenter oceasiones omnes, in quibus opera ejus prineipi grata esse possit; ut et volantatem promptam redimendi eulpam præteritam ostendat; et prineeps suus sentiat, qnali tandem servo, si eum dimittat, privari se contigeret. Quarto, ealpam ipsam ant sagaeiter in alios transferat; aut animo illam non malo commissam esse insinuet; aut etiam malitiam illorum, qui ipsum regi detulerunt, vel rem supra modum aggravarunt, indicet. Deniqae in omnibus evigilet, et eurationi sit intentus.

PARABOLA XVII.

" Primus in eausa sua justus: tum venit altera pars, et inquirit in eum."

EXPLICATIO.

Prima in unaquaque eausa informatio, si paulisper animo judicis insederit, altas radices agit, eumque imbuit, et ocenpat; adeo ut ægre elui possit, nisi aut manifesta aliqua falsitas in materia informationis, aut artificium aliquod in eadem exhibenda deprehendatur. Etenim nuda et simplex defensio, licet justa sit et præponderans, vix præjudicium informationis primæ eompensare, aut libram justitiæ semel propendentem ad æquilibriam redueere per se valet. Itaque et judici tutissimum, ut nihil, quod ad merita eausæ speetat, prælibetur, priusqnam utraque pars simul audiantur; et defensori optimum, si judicem senserit præoccupatum, in hoc potissimum (quantum dat causa) incumbere, ut versutiam ali-

quam, et dolum malum, ab adversa parte, in judicio abusum adhibitum, detegat.

PARABOLA XVIII.

" Qui delicate a pueritia nutrit servum suum, postea sentiet eum contumacem."

EXPLICATIO.

Servandus est principibus et dominis, ex consilio Salomonis, in gratia et favore suo erga servos modus. Is triplex est. Primo, ut promoveantur per gradus, non per saltus: secundo, ut interdum assuefiant repulsæ: tertio (quod bene præcipit Machiavellus) " ut habeant præ oculis suis semper aliquid, quo ulterius aspirare possint." Nisi enim hæc fiant, reportabunt procul dubio principes, in fine, a servis suis, loco animi grati et officiosi, fastidium et contumaciam. Etenim, ex promotione subita, oritur insolentia; ex perpetua desideratorum adeptione impatientia repulsæ; denique si vota desint, decrit itidem alacritas et industria.

PARABOLA XIX.

" Vidisti virum velocem in opere suo, coram regibus stabit, nec crit inter ignobiles."

EXPLICATIO.

Inter virtutes, quas reges, in delectu servorum, potissimum spectant et requirunt, gratissima est præ cunctis celeritas, et in negotiis expediendis strenuitas. Viri profunda prudentia regibus suspecti, utpote qui nimium sint inspectores, et dominos suos, inscios et invitos, ingenii sui viribus (tanquam machina) circumagere possint. Populares, invisi; utpote qui regum luminibus officiunt, et oculos populi in se convertunt. Animosi, pro turbulentis sæpe habentur, et ultra, quam per est, ausuris. Probi, et vitæ integræ, tanquam difficiles existimantur, nec ad omnes nutus heriles apti. Denique non est virtus alia, quæ non habeat aliquam quasi umbram, qua regum animi offendantur; sola velocitas ad mandata, nihil habet, quod non placeat. Insuper, motus animorum regiorum celeres sunt, et moræ minus patientes: putant enim, se quidvis efficere posse; illud tantum deesse, ut cito fiat. Itaque ante omnia iis grata est celeritas.

PARABOLA XX.

" Vidi cunctos viventes, qui ambulant sub sole, cum adolescente secundo, qui consurgit pro eo."

EXPLICATIO.

Notat parabola vanitatem hominum, qui se agglomerare solent ad successores designatos principum. Radix autem hujus rei est insania illa, hominum animis penitus a natura insita; nimirum ut spes suas nimium ademt. Vix enim reperitur, qui non delectatur magis iis, quæ sperat, quam iis, quæ fruitur. Quinetiam novitas humanæ naturæ grata est, et avide expetitur. In successore autem principis ista duo concurrunt; spes et novitas. Innuit autem parabola idem, quod olim dictum erat; primo a Pompeio ad Syllam; postea a Tiberio de Macrone; " plures adorare solem orientem, quam occidentem." Neque tamen imperantes multum hac re commoventur, aut eam magni faciunt, sicut nec Sylla, nec Tiberius fecit; sed rident potius hominum levitatem, nec pugnant cum somniis: " est autem," ut aiebat ille, " spes vigilantis insomnium."

PARABOLA XXI.

" Erat civitas parva, et pauci in ea viri; venit contra eam rex magnus, et vadavit eam, instruxitque munitiones per gyrum, et perfecta est obsidio; inventusque est in ea vir pauper et sapiens, et liberavit eam per sapientiam suam; et nullus deinceps recordatus est hominis illius pauperis."

EXPLICATIO.

Describit parabola ingenium hominum pravum et malevolum. Ii in rebus duris, et angustis, confugiunt fere ad viros prudentes, et strenuos, licet antea contemptui habitos. Quamprimum autem tempestas transierit, ingrati demum erga conservatores suos reperiuntur. Machiavellus vero, non sine causa, instituit quæstionem, " Uter ingratior esset erga benemeritos, princeps an populus?" Sed interum utrumque ingratitudinis arguit. Attamen hoc non solum ex ingratitudine principis aut populi oritur, sed accedit plerunque his invidia procerum, qui secreto indolent eventui, licet felici et prospero, quia ab ipsis profectus non sit: itaque et meritum hominis extenuant, et ipsum deprimunt.

PARABOLA XXII.

" Iter pigrorum, quasi sepes spinarum."

EXPLICATIO.

Elegantissime ostendit parabola, pigritiam in fine laboriosam esse. Diligentia enim, et sedula præparatio, id præstant, ut pes in aliquod offendiculum non impingat; sed ut complanetur via, antequam ineatur. At qui piger est, et omnia in extremum momentum executionis differt, necesse est, ut perpetuo, et singulis passibus, quasi per rubos et sentes incedat, qui eum subinde detineant, et impediant. Idem observari possit etiam in familia regenda; in qua, si adhibeatur cura et providentia, omnia placide et veluti sponte procedunt, absque strepitu et tumultu: sin hæc desint, ubi major aliquis motus intervenerit, omnia simul agenda turmatim occurrunt; tumultuantur servi, ædes personant.

PARABOLA XXIII.

" Qui cognoscit in judicio faciem, non bene facit; iste et pro buccella panis deseret veritatem."

EXPLICATIO.

Prudentissime notat parabola, in judice magis perniciosam esse facilitatem morum, quam corruptelam munerum. Munera enim haudquaquam ab omnibus deferuntur; at vix ulla est causa, in qua non inveniatur aliquid, quod flectat judicis animum, si personas respiciat. Alius enim respicietur, ut popularis; alius, ut maledicus; alius, ut dives; alius, ut gratus; alius, ut ab amico commendatus. Deni-

que omnia plena sunt iniquitatis ubi dominatur respectus personarum; et levi omnino de causa, veluti pro buccella panis, judicium pervertetur.

PARABOLA XXIV.

"Vir pauper calumnians pauperes, similis est imbri vehementi, in quo paratur fames."

EXPLICATIO.

Parabola ista antiquitus expressa et depicta fuit sub fabula hirudinis utriusque, nimirum, plenæ et vacuæ. Pauperis enim et famelici oppressio longe gravior est, quam oppressio per divitem et repletum; quippe quæ omnes exactionum technas, et omnes nummorum angulos, perquirit. Solebat hoc ipsum etiam spongiis assimilari, quæ aridæ fortiter sugunt, madidæ non item. Monitum autem utile continet, tum arga principes, ne præfecturas provinciarum, aut magistratus, viris indigentibus et obæratis committant; tum erga populos, ne reges suos cum nimia egestate conflictari permittant.

PARABOLA XXV.

"Fons turbatos pede, et vena corrupta, est justus cadens coram impio."

EXPLICATIO.

Præcipit parabola, rebuspublicis ante omnia cavendum esse de iniquo et infami judicio, in causa aliqua celebri et gravi; præsertim ubi non absolvitur innoxius, sed condemnatur insons. Etenim injuriæ inter privatos grassantes, turbant quidem et pollhunt latices justitiæ, sed tanquam in rivulis: verum judicia iniqua, qualia diximus, a quibus exempla petuntur, fontes ipsos justitiæ inficiunt et inquinant. Postquam enim tribunal eesserit in partes injustitiæ, status rerum vertitur tanquam in latrocinium publicum: fitque plane, ut "homo homini sit lupus."

PARABOLA XXVI.

"Noli esse amicus hominis iracundo, nec ambulato cum homine furioso."

EXPLICATIO.

Quanto religiosius amicitiæ jura inter bonos servanda et colenda sunt, tanto magis cavendum est, jam usque a principio, de prudente amicorum delectu. Atque amicorum natura et mores, quantum ad nos ipsos spectant, omnino ferendi sunt. Cum vero necessitatem nobis imponunt, qualem erga alios personam induamus et geramus, dura admodum et iniqua amicitiæ conditio est. Itaque interest imprimis, ut præcipit Salomon, ad vitæ pacem, et præsidia, ne res nostras cum hominibus iracundis, et qui facile lites et jurgia provocant aut suscipiunt, commisceamus. Istud enim genus amicorum perpetuo nos contentionibus et factionibus implicabit; ut aut amicitiam abrumpere, aut incolumitati proprie deesse, cogamur.

PARABOLA XXVII.

"Qui celat delictum, quærit amicitiam; sed qui altero sermone repetit, separat fœderatos."

EXPLICATIO.

Duplex, concordiam tractandi, et animos reconciliandi, via. Altera, quæ incipit ab amnestia; altera, quæ a repetitione injuriarum, subjungendo apologias et excusationes. Equidem memini sententiam viri admodum prudentes et politici, "Qui pacem tractat, non repetitis conditionibus dissidii, is magis animos dulcedine concordiæ fallit, quam æquitate componit." Verum Salomon, illo scilicet prudentior, in contraria opinione est; et amnestiam probat, repetitionem prohibet. Etenim in repetitione hæc insunt mala; tum quod ea sit veluti unguis in ulcere; tum quod periculum impendeat a nova altercatione (siquidem de injuriarum rationibus inter partes nunquam conveniet); tum denique quod deducat rem ad apologias; at utraque pars malit videri potius offensam remisisse, quam admisisse excusationem.

PARABOLA XXVIII.

"In omni opere bono erit abundantia; ubi autem verba sunt plurima, ibi frequenter egestas."

EXPLICATIO.

Separat Salomon, hac parabola, fructum laboris linguæ, et laboris manuum; quasi ex altero proveniat egestas, ex altero abundantia. Etenim fit fere perpetuo, ut, qui multa effutiant, jactent multa, multa promittant, egeni sint, nec emolumentum capiant ex illis rebus, de quibus loquuntur. Quinetiam, ut plurimum, industrii minime sunt, aut impigri ad opera; sed tantummodo sermonibus se, tanquam vento, pascunt et satiant. Sane, ut poëta loquitur, "Qui silet, est firmus." Is qui conscius est, se in opere proficere, sibi plaudit, et tacet: qui vero e contra conscius est, auras se inanes captare, multa et mira apud alios prædicat.

PARABOLA XXIX.

"Melior est correptio manifesta, quam amor occultus."

EXPLICATIO.

Reprehendit parabola mollitiem amicorum, qui amicitiæ privilegio non utuntur in admonendo libere et audacter amicos, tam de erroribus, quam de periculis suis. Quid enim faciam (solet hujusmodi mollis amicos dicere) aut quo me vertam? Amo illum, quantum quis, maxime; meque, si quid illi adversi contigerit, ipsius loco libenter substituerim: sed novi ingenium ejus; si libere cum eo egero, animum illius offendam; saltem contristabo: neque tamen proficiam; atque citius eum ab amicitia mea alienabo, quam ab iis, quæ in animo fixa habet, abducam. Hujusmodi amicum, tanquam enervem et inutilem, redarguit Salomon; atque plus utilitatis ab inimico manifesto, quam ab ejus generis amico, sumi posse pronunciat. Siquidem ea fortasse audire ei contigerit ab inimico per contumeliam, quæ amicus mussat præ nimia indulgentia.

PARABOLA XXX.

"Prudens advertit ad gressus suos; stultus divertit ad dolos."

EXPLICATIO.

Duæ sunt prudentiæ species. Altera vera et sana; altera degener et falsa, quam Salomon stultitiæ nomine appellare non dubitat. Qui priori se dederit, viis et vestigiis propriis cavet, periculis prospiciens, meditans remedio: proborum opera utens, contra improbos se ipsum muniens; cautus inceptu, receptu non imparatus; in occasiones attentus, contra impedimenta strenuus; cum innumeris aliis, quæ ad sui ipsius actiones et gressus regendos spectant. At altera species, tota est consuta ex fallaciis et astutiis, spemque ponit omnino in aliis circumveniendis, iisdemque ad libitum effingendis. Hanc merito rejicit parabola, non tantum ut improbam, sed etiam ut stultam. Primo enim, minime est ex iis rebus, quæ in nostra sunt potestate; nec etiam aliqua constanti regula nititur: sed nova quotidie comminiscenda sunt stratagemata, prioribus fatiscentibus et obsoletis. Secundo, qui vafri et subdoli hominis famam et opinionem semel incurrerit, præcipuo se ad res gerendas instrumento prorsus privavit, hoc est, fide: itaque omnia parum votis suis consentientia experietur. Postremo, artes istæ, utcunque pulchræ videantur et complaceant; attamen sæpius frustrantur; quod bene notavit Tacitus: "Consilia callida et audacia, expectatione læta, tractatu dura, eventu tristia."

PARABOLA XXXI.

"Noli esse justus nimium, nec sapientior quam oportet; cur abripiare subito."

EXPLICATIO.

"Sunt tempora," ut inquit Tacitas, "in quibus magnis virtutibus certissimum est exitium." Atque hoc viris virtute et justitia egregiis, aliquando subito, aliquando diu ante prævisum, contingit. Quod si adjungatur etiam prudentia, hoc est, ut cauti sint, et ad propriam incolumitatem evigilent, tum hoc lucrantur, ut ruina eorum subito obveniat ex occultis omnino et obscuris consiliis; quibus et evitetur invidia, et pernicies ipsos imparatos adoriatur. Quod vero ad illud *nimium*, quod in parabola ponitur (quandoquidem non Periandri alicujus, sed Salomonis verba sunt ista; qui mala in hominum vitæ sæpius notat, nunquam præcipit) intelligendum est, non de virtute ipsa (in qua nimium non est) sed de vana ejus atque invidiosa affectatione et ostentatione. Simile quiddam innuit Tacitus de Lepido, miraculi loco ponens, quod nunquam servilis alicujus sententiæ auctor fuisset, et tamen tam sævis temporibus incolumis mansisset: "Subit," inquit, "cogitatio, utrum hæc fato regantur, an etiam sit in nostra potestate, carsum quendam tenere, inter deforme obsequium et abruptam contumaciam, medium, periculo simul et indignitate vacuum?"

PARABOLA XXXII.

"Da sapienti occasionem, et addetur ei sapientia."

EXPLICATIO.

Distinguit parabola inter sapientiam illam, quæ in verum habitum increverit et maturuerit, et illam, quæ natat tantum in cerebro et conceptu, aut sermone jactatur, sed radices altas non egerit. Siquidem prior, oblata occasione, in qua exerceatur, illico excitatur, accingitur, dilatatur, adeo ut se ipsa major videatur: posterior vero, quæ ante occasionem alacris erat, occasione data, fit attonita et confusa, ut etiam ipsi, qui ea se præditum arbitrabatur, in dubium vocetur; annon præceptiones de ea fuerint insomnia mera, et speculationes inanes.

PARABOLA XXXIII.

"Qui laudat amicum voce alta, surgendo mane, erit illi loco maledictionis."

EXPLICATIO.

Laudes moderatæ et tempestivæ, et per occasionem prolatæ, famæ hominum atque etiam fortunæ plurimum conferunt; at immoderatæ et streperæ, et importune effusæ nihil prosunt; imo potius, ex sententia parabolæ, impense nocent. Primo enim manifesto se produnt, aut ex nimia benevolentia oriundas, aut ex composito affectatas, quo collaudatum potius falsis præconiis demereantur, quam veris attributis ornent. Secundo, laudes parcæ et modestæ invitant fere præsentes, ut ipsis etiam aliquid adjiciant; profusæ contra et immodicæ, ut aliquid demant et detrahant. Tertio (quod caput rei est) conflatur illi invidia, qui nimium laudatur; cum laudes omnes nimiæ videantur spectare ad contumeliam aliorum, qui non minus mereatur.

PARABOLA XXXIV.

"Quomodo in aquis resplendent facies; sic corda hominum manifesta sunt prudentibus."

EXPLICATIO.

Distinguit parabola inter mentes prudentium et cæterorum hominum; illas aquis aut speculis comparans, quæ species et imagines rerum recipiunt; cum alteræ similes sint terræ, aut lapidi impolito, in quibus nihil reflectitur. Atque eo magis apte comparatur animus hominis prudentis ad speculum; quia in speculo imago propria spectari possit, una cum imaginibus aliorum; id quod oculis ipsis sine speculo non conceditur. Quod si animus prudentis adeo capax sit, ut innumera ingenia et mores observare et internoscere possit; superest, ut detur opera, quo reddatur non minus variis applicatione, quam repræsentatione:

"Qui sapit, innumeris moribus aptus erit."

Atque his Salomonis parabolis diutius fortasse immorati sumus, quam pro modo exempli; dignitate et rei ipsius et auctoris longius proveeti.

Neque tantum in usu erat apud Hebræos, sed alibi etiam priscorum sapientibus frequentissimum; ut, si cujuspiam observatio in aliquid incidisset, quod vitæ communi conducibile fuisset, id redigeret et contraheret in brevem aliquam sententiam, vel parabolam, vel etiam fabulam. Verum, quod ad fabulas (sicut alias dictum est) illæ exemplorum vicarii et supplementa olim extiterunt: nunc quando tempora historiarum copia abundent, ad animatum scopum rectius et alacrius collimatur. At modus scribendi,

qui optime convenit argumento tam vario et multiplici (quale est tractatus de negotiis et occasionibus sparsis) aptissimus ille esset, quem delegit Machiavellus, ad tractandas res politicas; nimirum per observationes, sive discursus (ut loquuntur) super historiam et exempla. Nam scientia, quæ recenter, et quasi in conspectu nostro, ex particularibus elicitur, viam optime novit particularia denuo repetendi: atque certe ad practicam longe conducit magis, eum discursus sive disceptatio sub exemplo militat, quam cum exemplum disceptationi subjungitur. Neque enim hic ordo tantum spectatur, sed res ipsa. Cum enim exemplum statuitur tanquam disceptationis basis, universo cum circumstantiarum apparatu proponi solet, quæ discursum interdum corrigant, interdum suppleant; unde fit loco exemplaris ad imitationem, et practicam. Ubi e contra exempla, in gratiam disceptationis adducta, suceincte et nude citantur, et tanquam mancipia nutus tantum disceptationis observant.

Hoc vero discriminis operæ pretium fuerit observasse; quod sicut historiæ temporum optimam præbent materiam ad discursus super politicas, quales sunt illi Machiavelli; ita historiæ vitarum optime adhibentur ad documenta de negotiis; quoniam omnem occasionum et negotiorum, tam grandium quam leviorum, varietatem complectuntur. Imo reperire est hasin ad præceptiones de negotiis utraque illa historia adhuc commodiorem: ea est, ut discursus fiant super epistolas, sed prudentiores, et magis serias; quales sunt illæ Ciceronis ad Atticum, et aliæ. Siquidem epistolæ magis in proximo, et ad vivum, negotia solent repræsentare, quam vel annales, vel vitæ. Quare jam, et de materia, et de forma portionis primæ, doctrinæ de negotiis, quæ tractat occasiones sparsas, diximus, eamque inter desiderata numeramus.

Est et alia portio ejusdem doctrinæ, quæ tantum differt ab illa altera, de qua diximus, quantum sapere, et sibi sapere. Altera enim movere videtur tanquam a centro ad circumferentiam: altera tanquam a circumferentia ad centrum. Est enim prudentia quædam consilii aliis impertiendi; est vero et alia suis rebus prospiciendi: atque hæ nonnunquam conjunguntur, sæpius separantur. Multi siquidem in suis ipsorum rationibus instituendis prudentissimi sunt, qui tamen in rebuspublicis administrandis, aut etiam consiliis dandis, nihil valent: formicæ similes, quæ creatura sapiens est ad sese tuendum, sed horto plane noxia. Hæc virtus sibi sapiendi, Romanis ipsis, licet patriæ optimis curatoribus, non ignota fuit; unde comicus, "Nam pol sapiens fingit fortunam sibi." Quin et in adagium apud ipsos versum est, "Faber quisque fortunæ propriæ." Et Livius hanc ipsam Catoni Majori tribuit: "In hoc viro tanta vis animi et ingenii inerat, ut, quocunque loco natus esset, sibi ipse fortunam facturus videretur."

Hoc genus prudentiæ, si quis ipsum profiteatur et palam venditet, semper habitum est, non modo non politicum, verum etiam infaustum quiddam et inauspicatum: sicut in Timotheo Atheniensi observatum est: qui, postquam præclara multa facinora, in decus et commodum civitatis suæ edidisset, atque administrationis suæ (sicut tum moris erat) populo rationem redderet; singula conclusit hac clausula; "Atque in hac re fortunæ partes fuerunt nullæ." Contigit vero ut post id temporis nunquam ei quicquam feliciter eesserit. Sane nimis elatum hoc, et altum sapiens: eodem spectans, quo Ezechielis illud de Pharaone: "Dicit, Fluvius est meus, et ego feci memetipsum." Aut illud Habacuci prophetæ: "Exultant, et sacrificant reti suo:" aut illud etiam poëtæ, de contemptore deorum Mezentio;

> "Dextra mihi Deus, et telum, quod missile libro,
> Nunc adsint."—

Denique, Julius Cæsar, nunquam (quod memini) impotentiam cogitationum suarum arcanarum prodidit, nisi simili dicto: cum enim aruspex ei referret, exta reperta fuisse non bona, admurmuravit subinsse: "Erunt hetiora, cum volo." Quod etiam dictum mortis suæ infortunium non diu præeessit. Verum excessus iste fiduciæ (ut diximus) res ut profana, ita semper infelix. Quapropter, viris magnis et vere sapientibus visum, successus quoslibet felicitati suæ, non virtuti aut industriæ, tribuere: nam et Sylla, feliccm se, non magnum cognominavit; et Cæsar (melius quam supra) ad navis gubernatorem: "Cæsarem vehis, et fortunam ejus."

Attamen istæ sententiæ; "Faber quisque fortunæ suæ; Sapiens dominabitur astris; Invia virtuti nulla est via," ne similes; si intelligantur et adhibeantur potius pro calcaribus ad industriam, quam pro stapedibus ad insolentiam magisque ut progignant in hominibus decretorum constantiam et robur, quam arrogantiam et jactantiam, tanquam sanæ et salutares merito habitæ sunt, ac proculdubio in pectoribus hominum magnanimorum sedem nonnullam occuparunt, eousque ut cogitationes tales quandoque ægre dissimulent. Videnus enim, Augustum Cæsarem (qui cum avunculo suo comparatus, potius ab illo diversus quam inferior fuit; sed vir certe paulo moderatior) sub finem vitæ petiisse ab amicis, qui lectum ejus circumstabant, ut, postquam expirasset, sibi plauderent; quasi conscius sibi fuisset, mimum vitæ a se commode transactum. Hæc quoque doctrinæ portio inter desiderata numeranda est: non quin in praxi, etiam nimio plus quam oportet, usurpata sit et frequentata; verum quod libri de illa silent. Quamobrem ex more nostro, sicut in priore, nonnulla ejus capita recenselimus; eamque fabrum fortunæ, sive (ut diximus) doctrinam de anibitu vitæ nominabimus.

Ac primo quidem intuitu, novum quoddam et insolitum argumentum tractare videbor; docendo homines, quomodo fortunæ suæ fabri fieri possint; doctrinam certe, cui quivis libenter se discipulum addixerit, donec difficultatem ejusdem habuerit perspectam. Non enim leviora sunt, aut pauciora, aut minus ardua, quæ ad fortunam comparandam requiruntur, quam quæ ad virtutem: resque est æque difficilis ac severa, fieri vere politicum, ac vere moralem. At hujus doctrinæ pertractatio plurimum ad literarum, tum decus tum pondus, pertinet. Interest enim imprimis honoris literarum, ut homines isti pragmatici sciant, eruditionem haudquaquam aviculæ, qualis est alauda, similem esse, quæ in sublime ferri, et cantillando se oblectare solent; at nihil aliud: quinimo ex accipitris potius genere esse, qui

et in alto volare, ac subinde, cum visum fuerit, descendere, et prædam rapere novit. Deinde et ad perfectionem literarum hoc ipsum spectat, quia legitimæ inquisitionis vera norma est, ut nihil inveniatur in globo materiæ, quod non habeat parallelum in globo crystallino, sive intellectu. Hoc est, ut nihil veniat in practicam, cujus non sit etiam doctrina aliqua et theoria. Neque tamen literæ hanc ipsam fortunæ architecturam aliter admirantur aut æstimant, quam ut opus quoddam inferioris generis. Nemini enim, fortuna propria, pro dono esse sui, a Deo concesso, ullo modo digna retributio esse possit. Quin et non raro fit, ut viri virtutibus egregii fortunæ suæ sponte renuncient, ut rebus sublimioribus vacent. Digna tamen est fortuna, quatenus virtutis ac benemerendi organum est, sua quoque speculatione et doctrina.

Ad hanc doctrinam pertinent præcepta, nonnulla summaria, nonnulla sparsa et varia. Præcepta summaria versantur, circa veram notitiam, et aliorum et sui. Primum igitur præceptum (in quo cardo notitiæ aliorum vertitur) illud constituatur, ut procuremus nobis (quantum fieri possit) fenestram illam, quam olim requisivit Momus. Ille, cum in humani cordis fabrica tot angulos et recessus conspicatus esset, id reprehendit, quod defuisset fenestra, per quam in obscuros illos et tortuosos anfractus inspicere quis possit. Hanc autem fenestram obtinebimus, si omni sedolitate nobis informationem comparemus et procuremus, de personis, quibuscum intercedunt negotia, particularibus; earumque ingeniis, cupiditatibus, finibus, moribus, auxiliis et adminiculis, quibus præcipue suffulciuntur et valent; et rursus, defectibus et imbecillitatibus, quaque ex parte maxime pateant et obnoxii sint; amicis, factionibus, patronis, clientelis; rursusque inimicis, invidis, competitoribus; etiam temporibus et aditibus;

("Sola viri molles aditus et tempora noria:")

Denique institutis et normis, quas sibi præscripserunt, et similibus. Quinetiam, non solum informatio capienda est de personis, sed insuper de actionibus particularibus, quæ de tempore in tempus in mutu sunt, et tanquam sub incude; quomodo regantur et succedant, quorum studiis foveantur, a quibus oppugnentur, cujusque sint ponderis et momenti, et quid secum trahant, et hujusmodi. Etenim actiones præsentes nosse, et in se plurimum prodest; et illud insuper habet, quod absque hoc etiam personarum notitia valde futura sit fallax et erronea. Mutantur enim homines simul cum actionibus: et alii sunt dum actionibus ipsis implicantur et obsidentur; alii, postquam redierint ad ingenium. Atque hæ de rebus particularibus informationes, quæ tam ad personas, quam ad actiones, spectant, sunt tanquam propositiones minores in omni activo syllogismo. Nulla enim observationum aut axiomatum (unde conficiuntur majores propositiones politicæ) veritas aut excellentia, ad conclusionis firmamentum sufficere possit, si in minore propositione fuerit erratum. Quod vero hujusmodi notitia comparari possit, fidejussor nobis est Salomon, qui ait; "Consilium in corde viri, tanquam aqua profunda; sed vir prudens exhauriet illud." Quamvis autem ipsa notitia non cadat sub præceptum, quoniam individuorum est; attamen mandata de eadem elicienda utiliter dari possunt.

Notitia hominum sex modis elici et hauriri potest: per vultus et ora ipsorum; per verba; per facta; per ingenia sua; per fines suos; denique per relationes aliorum. Quantum ad vultus attinet, minime nos moveat vetus adagium, "Fronti nulla fides:" licet enim hoc ipsum non perperam dictum sit, de vultus et gestus compositione externa et generali; attamen subsunt subtiliores quidam motus et labores oculorum, oris, vultus et gestus: ex quibus reseratur et patet (ut elegantur ait Q. Cicero) veluti janua quædam animi. Quis Tiberio Cæsare occultior? At Tacitus, notans characterem et modum loquendi diversum, quo usus est Tiberius in laudando apud senatum res a Germanico et a Druso gestas; de laudibus Germanici sic; "Magis in speciem adornatis verbis, quam ut penitus sentire videretur." De laudibus Drusi sic: "Paucioribus, sed intentior et fida oratione." Iterum Tacitus eundem Tiberium, alias etiam ut nonnihil pellucidum, notans: "in aliis," inquit, "erat veluti eluctantium verborum; solutius vero loquebatur, quando subveniret." Sane difficile reperiatur simulationis artifex aliquis tam peritus et egregius; aut vultus aliquis ita coactus, et, ut ille loquitur, jussus; qui a sermone artificioso et simulatorio possit istas notas sejungere, quin aut sermo sit solito solutior, aut comptior, aut magis vagus et uberrans, aut magis aridus et quasi eluctans.

Ad verba hominum quod attinet, sunt quidem illa (ut de urinis loquuntur medici) meretricia. Sed isti meretricii fuci optime deprehenduntur duobus modis: cum scilicet proferuntur verba aut ex improviso, aut in perturbatione. Sic Tiberius, cum ex Agrippinæ verbis aculeatis subito commotus esset et nonnihil abreptus, extra innatæ simulationis terminos pedem protulit; "Audita hæc," inquit Tacitus, "rarum occulti pectoris vocem elicuere; correptamque Græco versu, admonuit, ideo lædi, quia non regnaret." Quare poëtn perturbationes hujusmodi non inscite appellat torturas, quod ab iis secreta sua prodere homines compellantur;

——"Vico tortus et ira."

Ipsa sane testatur experientia, paucos admodum reperiri, qui erga areana sua tam fidi sint, animumque gerant adeo obfirmatum, quin interdum ex iracundia; interdum ex jactantia; interdum ex intima erga amicum benevolentia; interdum ex animi imbecillitate, qui se mole cogitationum onerari amplius non sustineat; interdum denique ex alio quopiam affectu, intimas animi cogitationes revelent et communicent. Ac ante omnia sinus animi excutit, si simulatio simulationem impulerit; juxta adagium illud Hispanorum, "Dic mendacium, et erues veritatem."

Quin et factis ipsis, licet humani animi pignora sint certissima, non prorsus tamen fidendum, nisi diligenter atque attente pensitatis prius illorum et magnitudine et proprietate. Illud enim verissimum; fraus sibi in parvis fidem præstruit, ut majore emolumento fallat. Italus vero se ipsum in ipso stare lapide putat, ubi præco prædicat, si melius solito

tractetur, absque causa manifesta. Etenim officia ista minora homines reddunt oscitantes, et quasi consopitos tam ad cautionem, quam ad industriam: atque recte a Demosthene appellantur alimenta socordiæ. Porro proprietatem et naturam nonnullorum factorum, etiam quæ beneficiorum loco habentur, subdolam et ambiguam, luculenter cernere licet ex eo, quod Antonio primo imposuit Mutianus: qui post reditum cum eo in gratiam, sed fide pessima plurimos ex Antonii amicis ad dignitates evexit: "Simul amicis ejus præfecturas et tribunatus largitur." Hoc autem astu Antonium non munivit, sed exarmavit penitus et desolavit, amicitias ejus ad se transferendo.

Certissima autem clavis, ad animos hominum reserandos, vertitur, in rimandis et pernoscendis, vel ingeniis et naturis ipsorum, vel finibus et intentionibus. Atque imbecilliores certe et simpliciores ex ingeniis; prudentiores autem et tectiores, ex finibus suis optime judicantur. Certe prudenter et facete (licet meo judicio minus vere) dictum fuit a nuntio quopiam Pontificis, sub reditu ejus a legatione apud nationem quandam, ubi tanquam ordinarius resederat. Interrogatus de deleetu successoris sui, consilium dedit; ut nullo modo mitteretur aliquis, qui eximie prudens esset, sed potius mediocriter tantum; "quoniam," inquit, "ex prudentioribus nemo facile conjiciet, quid verisimile foret illius gentis homines facturos." Sane non raro intervenit ille error, et maxime familiaris est viris prudentibus, ut ex modulo ingenii proprii alios metiantur, ac proinde ultra scopum sæpius jaculentur, supponendo quod homines majora quædam meditentur, et sibi destinent, et subtilioribus technis utantur, quam quæ illorum animos unquam subierint. Quod etiam elegantur innuit adagium Italicum, quo notatur; Nummorum, prudentiæ, fidei, semper minores inveniri rationes, quam quis putaret. Quare in levioris ingenii hominibus, quia multa absurda faciunt, capienda est conjectura potius ex propensionibus ingeniorum, quam ex destinationibus finium. Porro, principes quoque (sed longe aliam ob causam) ab ingeniis optime judicantur: privati autem ex finibus. Principes enim fastigium adepti humanorum desideriorum, nullos fere sibi propositos fines habent, ad quos, præsertim vehementer et constanter, aspirent; ex quorum finium situ et distantia, reliquarum suarum actionum possit excipi et confici directio et scala: id, quod inter alia causa est vel præcipua, ut corda eorum (quod Scriptura pronuneiat) sint inscrutabilia. At privatorum nullus est, qui non sit plane veluti viator, et proficiscatur intente ad aliquam, itineris metam, ubi consistat: unde non male divinare quis poterit, quid facturis sit, aut non facturus. Si enim in ordine sit quidpiam ad finem suum, probabile est facturum: sin sit in contrarium finis, minime. Neque de finium aut ingeniorum in hominibus diversitate informatio capienda est simpliciter tantum, sed et comparate: quid scilicet prædominetur, et reliqua in ordinem cogat? Sic, ut videmus, Tigellinus, cum se Petronio Turpiliano inferiorem sentiret, in voluptatibus Neroni ministrandis et prægustandis, "metus," ut ait Tacitus, "Neronis rimatus est," et hoc pacto æmulum evertit.

Ad notitiam quod attinet de hominum animis secundariam, nimirum, quæ ab aliorum relatione desumitur, breviter dicere sufficiet. Defectus et vitia didiceris optime ab inimicis: virtutes et facultates ab amicis: mores et tempora a famulis: opiniones et meditationes ab intimis familiaribus, cum quibus frequentius colloquia miscent. Fama popularis levis est, et superiorum judicia minus certa: etenim coram illis tectiores incedunt homines. Verior fama e domesticis emanat.

Verum ad inquisitionem istam universam via maxime compendiaria in tribus consistit. Primum, ut amicitias multas comparemus cum ejusmodi hominibus qui multiplicem et variam habent tam rerum, quam personarum, notitiam: imprimis vero enitendum, ut saltem singulos habeamus præsto, qui, pro negotiorum atque hominum diversitate, nos de unaquaque re certiores facere et solide informare possint. Secundo, ut prudens temperamentum et mediocritatem quandam persequamur, et in libertate sermonis, et in taciturnitate: frequentius libertatem usurpantes; at, cum res postulat, silentium. Libertas siquidem in sermone etiam alios invitat et provocat, ut pari libertate erga nos utantur; et sic multa deducit ad notitiam nostram; at taciturnitas fidem conciliat, efficitque ut ament homines secreta sua apud nos, tanquam in sinu, deponere. Tertio, is nobis paulatim acquirendus est habitus, ut, vigilante et præsente animo, in omnibus colloquiis et actionibus simul et rem, quæ instat, geramus; et alia, quæ ineidunt, observemus. Nam sicut Epietetus præcipit ut philosophus, in singulis suis actionibus, ita secum loquatur: Et hoc volo, et etiam institutum servare; sic politicus, in singulis negotiis, ita secum statuat; Et hoc volo, atque etiam aliquid, quod in futurum usui esse possit, addiscere. Itaque, qui eo sunt ingenio, ut nimium hoc agant, et toti sint in præsente negotio, quod in manibus habent, de iis autem, quæ interveniunt, nec cogitant quidem (id quod in se agnoseit Montaneus) illi certe ministri regum aut rerumpublicarum sunt vel optimi, sed ad proprias fortunas claudicant. Interim cautio ante omnia adhibenda, ut impetum animi et alacritatem nimiam cohibeamus, ne multa sciendo, ad nos multis immiscendum feramur. Infelix enim quiddam est et temerarium, polypragmosyne. Itaque ista, quam comparandam præcipimus, notitiæ rerum et personarum varietas huc tandem redit, ut et rerum, quas suscipimus, et hominum, quorum opera utimur, magis eum judicio delectum faciamus, unde cuncta et magis dextere et magis tuto disponere et administrare sciamus.

Notitiam aliorum sequitur notitia sui. Etenim non minor diligentia adhibenda est, sed major potius, ut nos de nobis ipsis, quam de aliis, vere et accurate informemus. Quippe cum oraculum illud, "Nosce te ipsum," non tantum sit canon prudentiæ universalis, sed et in politicis præcipuum locum habeat. Optime enim homines monet S. Jacobus, eum, qui vultum in speculo consideravit, oblivisci tamen illico, qualis fuerit; ut omnino frequenti inspectione sit opus. Idque tenet etiam in politicis. Sed specula scilicet sunt diversa: nam speculum divinum, in quo nos contneri debemus, est verbum Dei: specu-

lum autem politicum, non aliud est, quam status rerum et temporum, in quibus vivimus.

Examen igitur accuratum, nec quale esse solet sui nimium amantis, instituendum est homini, de propriis facultatibus, virtutibus, et adminiculis; nec non de defectibus, inhabilitatibus, et obstaculis; ita rationem subducendo, ut hæc perpetuo in majus, illa autem minoris potius, quam revera sunt, æstimentur. Ex hujusmodi autem examine in considerationem veniant quæ sequuntur.

Prima consideratio sit, quomodo alicui homini, moribusque, et naturæ suæ, cum temporibus conveniat; quæ si inventa fuerint congrua omnibus in rebus, magis libere et solute agere, et suo ingenio uti liceat: sin sit aliqua antipathia, tum demum in universo vitæ cursu magis caute et recte est incedendum, minusque in publico versandum. Sic Tiberius fecit, qui, morum suorum sibi conscius cum seculo suo non optime convenientium, ludos publicos nunquam spectavit: quinetiam per duodecim continuos annos postremos nunquam in senatum venit: ubi contra Augustus perpetuo in oculis hominum vixit: quod et Tacitus observat; "alia Tiberio morum via." Eadem et Periclis ratio fuit.

Secunda sit consideratio, quomodo alicui conveniat cum professionibus et generibus vitæ, quæ in usu et pretio sunt, quorumque sibi delectus sit faciendus; ut si jam decretum non sit de genere vitæ, maxime aptum et ingenio suo congruum sumat: sin jam pridem id genus vitæ, ad quod minus a natura factus est, fuerit ingressus, sub prima occasione se subducat, et novam conditionem arripiat. Id quod a Valentino Borgia videmus factum, ad vitam sacerdotalem a patre innutrito; quam tamen postea ejuravit, suo obsecutus ingenio, et vitæ militari se applicuit: quanquam principatu æque ac sacerdotio indignus, cum utrumque homo pestilens dehonestaverit.

Tertia sit consideratio, quomodo se habeat quis, comparatus ad æquales et æmulos suos, quos verisimile sit eum habiturum in fortuna sua competitores, eumque vitæ cursum teneat, in quo maxima inveniatur virorum egregiorum solitudo: atque in quo probabile sit, se ipsum inter cæteros maxime posse enitere. Id quod a C. Cæsare factum est: qui ab initio orator fuit et causas egit; et in toga potissimum versabatur: cum vero vidisset, Ciceronem, Hortensium, Catulum, eloquentiæ gloria excellere, rebus vero bellicis clarum admodum neminem, præter Pompeium; destitit ab incepto, et potentiæ illi civili multum valedicere jubens, transtulit se ad artes militares et imperatorias; ex quibus summum rerum fastigium conscendit.

Quarta sit consideratio, ut naturæ suæ et ingenii rationem habeat quis in deligendis amicis ac necessariis: siquidem diversis diversum genus amicorum conveuit; aliis solenne et taciturnum; aliis audax et jactabundum: et complura id genus. Certe notatu dignum est, quales fuerint amici Julii Cæsaris (Antonius, Hirtius, Pansa, Oppius, Balbus, Dolabella, Pollio, reliqui) illi scilicet jurare solebant, Ita vivente Cæsare moriar; infinitum studium erga Cæsarem præ se ferentes; erga omnes alios arrogantes et contemptores; fuerunt que homines in negotiis gerendis impigri, fama et existimatione mediocres.

Quinta sit consideratio, ut cavcat quis sibi ab exemplis; neque ad imitationem aliorum se inepte componat: quasi quod aliis fuerit pervium, etiam sibi patere necesse sit: neutiquam secum reputans, quantum fortasse interfuerit inter suum et illorum, quos ad exemplum sibi delegit, ingenium et mores. In quem errorem manifesto incidit Pompeius, qui, ut Cicero scriptum reliquit, toties solitus erat dicere: "Sylla potuit, ego non potero?" Qua in re vehementer sibi imposuit, cum ingenium et rationes agendi Syllæ a suis toto cœlo (ut aiunt) distarent: cum alter ferox esset, violentus, quique factum in omnibus urgeret; alter gravis, legum memor, omniaque ad majestatem et famam componens; unde longe minus erat, ad perficienda quæ cogitarat, efficax et validus. Sunt et aliæ hujus generis præceptionis; verum hæ ad exemplum reliquarum sufficient.

Neque vero, nosse se ipsum, homini sufficit; sed inennda etiam est ratio secum, quomodo se ostentare, declarare, denique flectere se, et effingere, commode et prudenter possit. Ad ostentandum se quod attinet, nihil videmus usu venire frequentius, quam ut qui virtutis habitu sit inferior, specie virtutis externa sit potior. Non parva igitur est prudentiæ prærogativa, si quis arte quadam, et decore, specimen sui apud alios exhibere possit: virtutes suas, merita, atque fortunam etiam (quod sine arrogantia aut fastidio fieri possit) commode ostentando: contra, vitia, defectus, infortunia et dedecora, artificiose occultando: illis immorans, easque veluti ad lumen obvertens; his subterfugia quærens, aut apte ea interpretando eluens; et similia. Itaque, de Mutiano, viro sui temporis prudentissimo, et ad res gerendas impigerrimo, Tacitus; "Omnium quæ dixerat, fecerat que, arte quadam ostentator." Indiget certe res hæc arte nonnulla, ne tædium et contemptum parint: ita tamen, ut ostentatio quæpiam, licet usque ad vanitatis primum gradum, vitium sit potius in ethicis, quam in politicis. Sicut enim dici solet de calumnia, Audacter calumniare, semper aliquid hæret: sic dici possit de jactantia (nisi plane deformis fuerit et ridicula) Audacter te vendita, semper aliquid hæret. Hærebit certe apud populum, licet prudentiores subridcant. Itaque existimatio parte apud plurimos, paucorum fastidium abunde compensabit. Quod si ista, de qua loquimur, sui ostentatio decenter et cum judicio regatur; exempli gratia; si nativum quendam pectoris candorem et ingenuitatem præ se ferat; aut si illis temporibus adhibeatur, vel cum pericula circumstent (ut apud viros militares in bellis) vel cum alii invidia flagrent; aut si verba quæ ad laudes proprias pertinent, tanquam aliud agenti excidisse videantur; minimeque vel scrio vel prolixe nimis iis insistatur; aut si ita quis se laudibus honestet, ut simul etiam censuris et jocis erga se non abstineat; aut si denique hoc facit non sponte, sed tanquam lacessitus, et aliorum insolentiis et contumeliis provocatus; non parvum certe hæc res existimationi hominis cumulum adjicit. Neque sane exiguus est eorum numerus, qui, cum natura sint magis solidi, et minime ventosi, atque propterea hac arte honori suo velificandi careant, moderationis suæ, nonnulla cum dignitatis jactura, dant pœnas.

Verum hujusmodi ostentationem virtutis, utcunque

aliquis infirmiore judicio, et nimium fortasse ethicus, improbaverit; illud nemo negarit, dandam saltem esse operam, ut virtus per incuriam justo suo pretio non fraudetur, et minoris, quam revere est, æstimetur. Hæc vero in virtute æstimanda, pretii diminutio, tribus modis solet contingere: primo, quando quis, in rebus gerendis, se et operam suam offert et obtrudit, non vocatus aut accersitus: hujusmodi enim officiis, remunerationis loco esse solet, si non repudientur. Secundo, quando quis in principio rei gerendæ viribus suis nimium abutitur; et quod sensim erat præstandum, uno impetu effundit: id quod rebus bene administratis præproperam conciliat gratiam, in fine autem satietatem inducit. Tertio, quando quis virtutis suæ fructum in laudibus, plausu, honore, gratia, sibi præbitis, nimis cito et leviter sentit, atque in iis sibi complacet: de quo prudens habetur monitum; Cave ne insuetus rebus majoribus videaris, si hæc te res parva, sicuti magna, delectat.

Defectuum enimvero sedula occultatio, minoris haudquaquam momenti est, quam virtutum prudens et artificiosa ostentatio. Defectus autem occultantur et latent maxime, triplici quadam industria, et quasi tribus latebris: cautione, prætextu, et confidentia. Cautionem dicimus, quando iis rebus prudenter abstinemus, quibus pares non sumus: ubi contra ingenia audacula et inquieta se facile ingerunt, sine judicio, rebus quibus non insueverunt; et proinde defectus suos proprios publicant et quasi proclamant. Prætextum dicimus, cum sagaciter et prudenter viam nobis sternimus et munimus, qua benigna et commoda de vitiis et defectibus nostris fiat interpretatio; quasi aliunde provenientibus, aut alio tendentibus, quam vulgo existimatur. Etenim, de latebris vitiorum non male poëta:

" Sæpe latet vitium proximitate boni."

Quare, si quem defectum in nobis ipsis perceperimus, opera danda, ut personam et prætextum virtutis finitimæ mutuemur, sub cujus umbra lateat. Verbi gratia, tardo gravitas prætexenda, ignavo lenitas, et sic de cæteris. Illud etiam utile, probabilem aliquam causam obtendere, et in vulgus spargere, qua adducti, ultimas vires nostras promere refugiamus; ut quod non possimus, nolle videamur. Quod ad confidentiam attinet, impudens certe est remedium, sed tamen certissimum atque efficacissimum: nempe, ut quis ea omnino contemnere, et vilipendere se profiteatur, quæ revera assequi non possit: mercatorum prudentium more, quibus solenne est et proprium, ut pretium mercium suarum attollant, aliorum deprimant. Est tamen et aliud confidentiæ genus, hoc ipso impudentius; nimirum, perfricta fronte defectus suos etiam opinioni obtrudere et venditare, quasi in iis, quibus maxime destituitur, se eminere credat: atque ut hoc facilius cæteris imponat, se in iis rebus, quibus revera plurimum pollet, fingat diffidentem; quemadmodum fieri videmus in poëtis. Poëta enim carmina sua recitante, si unum aliquem versiculum non admodum dixeris probandum, audias illico: Atque hic versus pluris mihi constitit, quam reliquorum plurimi. Tum vero alium quempiam versum adducet, quasi sibi suspectum, et de eo, quid putes, sciscitabitur, quem satis norit, inter plurimos esse optimum, et censuræ minime obnoxium. Ante omnia vero ad hoc, quod nunc agitur, ut scilicet specimen sui quis edat coram aliis illustre, et jus suum in omnibus retineat, nil magis interesse judico, quam ne quis, per nimiam suam naturæ bonitatem et suavitatem, se exermet, et injuriis et contumeliis exponat: quin potius in omnibus aliquos animi liberi et generosi, et non aculei minus, quam mellis, intra se gestantis, igniculos subinde emittat. Quæ quidem munita vitæ ratio, una cum prompto et parato ad se a contumeliis vindicandum animo, aliquibus ex accidente imponitur, et necessitate quadam inevitabili, propter aliquid infixum in personam aut fortuna sua; veluti fit in deformibus, et spuriis, et ignominia aliqua muletatis; unde hujusmodi homines, si virtus non desit, felices plerunque evadunt.

Quod vero ad se declarandum attinet; id alia res omnino est ab ostentatione sui, de qua diximus. Neque enim ad virtutes aut defectus hominum refertur; sed ad actiones vitæ particulares. Qua in parte nihil invenitur magis politicum, quam ut mediocritas quædam servetur, prudens et sana, in sensa animi, circa actiones particulares, aperiendo, aut recondendo. Licet enim profunda taciturnitas, et consiliorum occultatio, et is rerum gerendarum modus, qui omnia cæcis et (ut modernæ linguæ potius loquuntur) surdis artibus et mediis operatur, res sit et utilis, et mirabilis: tamen non raro evenit, ut (quod dicitur) dissimulatio errores pariat, qui dissimulatorem ipsum illaqueant. Nam videmus, viros politicos, maxime omnium insignes, libere et indissimulanter fines, quos peterent, palam proferre non dubitasse. Sic L. Sylla manifesto præ se tulit, " se, omnes mortales, vel felices, vel infelices fieri cupere, prout sibi essent vel amici vel inimici." Sic Cæsar, cum primum profectus est in Gallias, nil veritus est profiteri: " se malle primum esse in villa obscura, quam secundum Romæ." Idem Cæsar, cæpto jam bello, dissimulatorem minime egit, si audiamus quid Cicero de illo prædicet. " Alter" (Cæsarem innuens) " non recusat, sed quodammodo postulat, ut (ut est) sic appelletur, tyrannus." Similiter videmus, in epistola quadam Ciceronis ad Atticum, quam minime fuerit Augustus Cæsar dissimulator; qui in ipso ingressu ad res gerendas, cum adhuc senatui esset in deliciis, solitus tamen erat in concionibus apud populum jurare illa formula: " Ita parentis honores consequi liceat." Illud autem non minus quiddam erat, quam ipsa tyrannis. Verum est, ad invidiam paululum leniendam, solitum eum simul ad statuam Julii Cæsaris, quæ in rostris posita erat, manum protendere. Homines autem ridebant, et plaudebant, et admirabantur, et inter se ita loquebantur: " Quid hoc est? Qualis adolescens?" Sed tamen nihil malitiæ in eo suspicabantur, qui tam candide et ingenue, quod sentiret, loqueretur. Et isti quidem, quos nominavimus, prospera omnia consecuti sunt: Pompeius contra, qui ad eosdem tendebat fines, sed viis magis umbrosis et obscuris (sicut Tacitus de eo loquitur, " Occultior, non melior:" atque Sallustius similiter idem insimulat, " Ore probo, animo invereeundo") id prorsus agebat, et

innumeris teehuis moliebatur, ut, cupiditates suas et nmbitionem alte recondendo, interim rempublicam in snarehiam et eonfusionem redigeret, quo illa se necessario in sinus ejus conjiceret; atque hoc pacto summa rerum ad eum deferretur, quasi invitum et renitentem. Cum vero hoc se putaret conseeutum, faetus eonsul solus (quod nunquam euiquam eontigisset) nihilo plus ad fines suos profieiebat, eo quod etiam illi, qui proculdubio eum fuissent adjuturi, quid vellet non pereiperent. Adeo ut tandem conetus sit, tritam et vulgarem iuire viam, ut seilieet, prætextu se Cæsari opponeudi, arma et exereitum comparsret. Adeo leuta, easibus obnoxia, et plerumque infelicia solent esse ea eonsilia, quæ profunda dissimulatione obteguntur! Qua de re idem sensisse videtur Tacitus, cum simulationis artifieia tauquam inferioris subsellii prudentiam eonstituit, præ artibus politicis: illam Tiberio, has vero Augusto Cæsari attribuens. Etenim, de Livia verba faciens, sie loquitur; quod fuisset illa "cum artibus mariti, et simulatione filii, bene eomposita."

Quod ad nnimum flectandum et effingendum attinet; totis viribus certe incumbendum, ut animus reddatur occasionibus et opportunitatibus obsequens, neque nllo modo erga eas durus aut renitens. Neque enim majus fuerit impedimentum ad res gerendas, aut fortunas homiuum eonstitueudas, quum illud; idem manebat, neque idem decebat: videlicet, cum homines iidem sint, et natura sua utantnr, postquam occasiones se mutaverint. Bene itaque Livius, cum Catonem Majorem introdueit, tanquam fortunæ suæ arehiteetum peritissimum, illud subjungit; qnod ei fuerit ingenium versatile. Atque hine fit, quod ingenia gravia et solennia, et mutare uescia, plus plerunque hnbeant dignitntis, quam felicitatis. Hoc vero vitium in aliquibus a natura penitus insitum eat, qui suopte ingenio sunt viscosi et nodosi, et nd versandum inepti. At in aliis eonsuetudine obtinuit (quæ est altera natura) atque opinione quadam (quæ in animos hominum facile obrepit) ut minime mutandam sibi putent rerum gerendarum rationem, quam prius bonam et prosperam sint experti. Prudenter enim observat Machiavellus in Fabio Maximo; "Quod pristinum suum et inveteratum cunctandi et bella trahendi morem retinere mordieus voluerit, cum natura belli esset alia, et acriora postularet eonsilia." In aliis porro idem vitium ex inopin judicii progignitur; cum homines periodos rerum et actionum non tempestive discernant; sed tum demum se vertant, postquam opportunitas jam elapsa sit. Tale quidpiam iu Athenicnsibus suis redarguit Demosthenes, eos aiens esse "rusticis similes, qui in ludo gladiatorio se probantes, semper post plagam acceptam in eam partem muniendam scutum transferunt, qua pereussi sunt; non prius." In aliis rursus hoc ipsum contingit, quia operam in via ea, quam semel ingressi sunt, collocatam, perdere gravantur, nec receptui eanere sciunt; sed potius se occasionibus superiores fore constantia sua confidunt. Verum ista animi viscositas et renitentia, n quacunque illa tandem radiee pullularit, rebus gerendis et fortunæ hominum est damnosissima: nihilque magis politicum, quam animi rotas reddere cum rotis fortunæ concentricas, et simul volubiles. Atque de præceptis duobus summariis, circa fortunæ architeeturam, haetenus. Præcepta autem sparsa haud pauca sunt; nos tamen perpauca diligemus, pro modo exempli.

Primum præceptum est; faber fortunæ amusse sua perite utatur, eamque rite applieet; hoc est, animum assuefaciat, ut rerum omnium pretium et valorem æstimet, prout ad fortunam et fines suos magis aut minus condueant; hocque curet sedulo, non perfunctorie. Mira enim res, sed verissima; inveninntur plurimi, quorum mentis pars logica (si ita loqui licet) est bona, mathematica pessima: videlicet, qui de rerum eonsequentiis satis firmiter judicant; de pretiis vero imperitissime. Hinc fit, ut alii privata et secreta eum principibus colloquia, nlii nuras populares, tanquam magna adepti, admirentur; cum sit utrumque sæpenumero res et invidia et perieulo plena: alii autem res metiuntur ex difficultate atque opera sua in eis impensa; fieri oportere existimantes, ut quantum moverint, tantum etiam promoverint: sieut Cæsar de Catone Utieensi, veluti per ironiam, dixit, narrando, quam laboriosus fuerit et assiduus, et quasi indefatigabilis, neque tamen multum ad rem: "Omnia" (inquit) "magno studio agebat." Hinc etiam illud accidit, ut homines sæpius se ipsos fallant; qui, si magni nlicujus aut honorati viri opera utantur, sibi omnia prospera promittunt; cum illud verum sit, non grandissima quæque instrumenta, sed aptissima, eitius et felicius opus quodque perficere. Atque ad mathematicam veram animi informandam, operæ pretium est, illud imprimis nosse et descriptum habere, quid ad cujusque fortunam eonstituendam et promovendam primum statui debeat, quid secundum, et sie deinceps. Primo loco emendationem animi pono; animi enim impedimentn et nodos tollendo et complanando, citius viam fortunæ aperueris, quam fortunæ auxiliis animi impedimenta sustuleris. Secundo loco opes pono, et pecuniam: qnam summo loco plurimi fortasse eollocaverint, eum tanti sit nd omnia usus. Verum eam opinionem, similem ob eausam abjudico, atque Machiavellus feeit in alia re, non multum ab ea discrepante. Cum euim vetus fuerit sententia, pecuniam esse nervos belli; ille eontra, non alios esse nervos belli asseruit, quam nervos virorum fortium et militarium. Eodem prorsus modo vere asseri possit; nervos fortunæ, uon esse pecuniam, sed potius animi vires, ingenium, fortitudinem, audaciam, constantiam, moderationem, industriam, et similia. Tertio loco colloco famam et existimationem; eo magis, quod illa æstus quosdam habeant, et tempora, quibus si non opportune utaris, difficile erit rem in integrum restituere. Ardua enim res, famam præcipitantem retrovertere. Postremo loco pono honores, ad quos certe facilior aditus per unumquodque ex illis tribus, multo magis per omnia conjuncta, datur; quam si ab honuribus auspiceris, et deinde adreliqua perrexeris. Verum, ut in ordine rerum servando haud parum est momenti, ita non multo minus iu servando ordine temporis; cujus perturbatione frequentissime peccatur, dum ad fines tum properatur, quando initia esseut eurauda; atque dum ad maxima quæque subito ndvolamus, quæ in medio posita sunt, temere transilieutes.

At illud recte præcipitur; "Quod nunc instat, agamus."

Secundum præceptum est, ut caveamus, ne animi quadam magnitudine, et præfidentia, ad magis ardua, quam par est, feramur: neve in adversum fluvii remigemus. Optimum enim consilium circa fortunas hominum:

"—Fatis accede, Deisque."

Circumspiciamus in omnes partes, et observemus, qua res pateant, qua clausæ et obstructæ sint, qua proclives, quæ arduæ; neque viribus nostris, ubi non patet aditus commodus, abutamur. Hoc si fecerimus, et a repulsa nos immunes præstabimus, et in negotiis singulis nimis diu non hærebimus, et moderationis laudem reportabimus, et pauciores offendemus, et denique felicitatis opinionem acquiremus; dum quæ sponte fortasse eventura fuissent, nostræ industriæ accepta ferentur.

Tertium præceptum eum proxime præcedente nonnihil pugnare videri possit; licet, probe intellectum, minime. Illud hujusmodi est; ut occasiones non semper expectemus, sed eas quandoque provocemus et ducamus. Quod etiam innuit Demosthenes; magniloquentia quadam: "Et quemadmodum receptum est, ut exercitum ducat imperator, sic a cordatis viris res ipsæ ducendæ, ut quæ ipsis videntur, ea gerentur; et non ipsi persequi eventus tantum cogantur." Etenim, si diligenter attendamus, duas observabimus, easque discrepantes, species eorum, qui rebus gerendis et negotiis tractandis pares habeantur. Alii siquidem occasionibus commode sciunt uti, sed nihil ex se moliuntur, aut excogitant; alii toti sunt in machinando, qui occasiones, quæ opportune incidunt, non arripiunt. Harum facultatum altera, alteri non conjuncta, manca omnino et imperfecta censenda est.

Quartum est præceptum; ut nihil suscipiamus, in quo necesse sit temporis plurimum insumere; verum ut versiculus ille aurem semper vellicet:

"Sed fugit interea, fugit irreparabile tempus."

Neque alia subest causa, cur ii, qui professionibus laboriosis, aut rebus similibus se addixerunt, veluti jureconsulti, oratores, theologi doctiores, librorum scriptores, et hujusmodi, in fortuna sua constituenda et promovenda minus sint solertes, quam quod tempore (alias scilicet insumpto) indigent ad particularia pernoscenda, opportunitates captandas, et machinas, quæ ad fortunam suam spectent, comminiscendas et meditandas. Quinetiam in aulis principum et rebuspublicis eos reperias, et ad fortunam suam promovendam, et ad aliorum invadendam, maxime efficaces, qui nullo publico munere funguntur; sed in hoc, de quo loquimur, ambitu vitæ perpetuo occupantur.

Quintum est præceptum; ut naturam quodammodo imitemur, quæ nihil facit frustra. Id quod factu non erit admodum difficile, si negotia nostra omnium generum perite commiscemus et contexamus. In singulis enim actionibus ita animus est instituendus et præparandus, atque intentiones nostræ aliæ aliis substernendæ et subordinandæ; ut si in aliqua re voti compotes in summo gradu fieri non possumus, in secundo tamen liceat consistere, imo vel in tertio; quod si nec in aliqua omnino parte rei hærere aut consistere possimus, tum vero ad alium quempiam (præter destinatum) finem operam impensam flectamus; sin nec in præsenti aliquem fructum demetere queamus, saltem aliquid ex ea extrahamus, quod in futurum prosit: si vero nihil solidi, nec in præsenti nec in futuro inde elicere detur, satagamus saltem, ut aliquid existimationi nostræ inde accrescat; et alia id genus: rationes semper a nobis ipsis exigendo, quibus constet nos fructus aliquid, plus minus, ex singulis actionibus et consiliis nostris percepisse: neque ullo modo permittendo, ut tanquam confusi ac consternati animum illico despondeamus, si forte scopum principalem non licuerit attingere. Nihil enim minus convenit viro politico, quam uni rei unice esse intentum. Qui enim hoc facit, occasionem innumerarum jactura muletabitur; quæ rebus agendis ex obliquo intervenire solent, quæque fortasse magis fuerint propitiæ et commodæ ad alia quæ postea usui futura sint, quam ad ea, quæ in manibus habeamus. Ideoque bene calleamus illam regulam, "Hæc oportet facere, et illa non omittere."

Sextum est præceptum, ut nos rei alicui nimis peremptorie non astringamus: quamquam casui videatur, primo intuitu, minus obnoxin: sed semper habeamus, vel fenestram apertam ad evolandum, vel posticum aliquod secretum ad redeundum.

Septimum præceptum, est antiquum illud Biantis; modo non ad perfidiam, sed ad cautionem et moderationem adhibeatur: "Et ames tanquam inimicus futurus et oderis tanquam amaturus." Nam utilitates quasque mirum in modum, prodit et corrumpit, si quis nimium se immerserit amicitiis infelicibus, molestis et turbidis odiis, aut pucrilibus et futilibus æmulationibus.

Hæc exempli loco circa doctrinam de ambitu vitæ sufficient: illud enim hominibus in memoriam subinde reducendum est, longe abesse, ut adumbrationes istæ, quibus utimur in desideratis, loco justorum tractatuum ponuntur; sed sint solummodo tanquam schedæ aut fimbriæ, ex quibus de tela integra judicium fieri possit. Neque rursus ita desipimus, ut fortunam absque tanto, quantum diximus, molimine minime parari asseramus. Probe enim novimus, eam tanquam sponte in gremium aliquorum defluere: alii autem eam diligentia sola et assiduitate (cautione nonnulla aspersa) absque arte multa aut operosa, adipiscuntur. Verum sicut Cicero, oratorem perfectum depingens, non id vult, ut causidici singuli tales esse debeant, aut possint; ac rursus, sicut in principe aut aulico describendo (quod nonnulli tractandum susceperunt) modulus effingitur, prorsus secundum artis perfectionem, non autem secundum practicam vulgatam: idem et nos in politico instruendo præstitimus; politico (inquam) quoad fortunam propriam.

Enimvero, illud utique monendum, præcepta, quæ circa hanc rem delegimus et proposuimus, omnia ex genere eorum esse, quæ bonæ artes vocantur. Quod enim ad malas artes attinet; si quis Machiavello se dederit in disciplinam, qui præcipit virtutem ipsam non magnopere curandam, sed tantum speciem ejus, in publicum versam: quia virtutis fama et opinio

homini adjumento sit, virtus ipsa impedimento; quique alio loco præcipit; ut homo politicus illud tanquam fundamentum prudentiæ suæ substernat, quod præsupponat, homines non recte nec tuto ad ea, quæ volumus, flecti aut adduci posse, præterquam solo metu: ideoque det operam ut omnes, quantum in se est, obnoxii sint, atque in periculis et angustiis constituti; ita ut politicus suus videatur esse, quod Itali dicunt, seminator spinarum: aut si quis axioma illud, quod a Cicerone citatur, amplecti velit: "Cadant amici, dummodo inimici intercidant;" sicut triumviri fecerunt, qui inimicorum interitum amicissimorum exitio redimebant: aut si quis L. Catilinæ imitator esse velit, ut rerumpublicarum incendiarius fiat et perturbator, quo melius in aquis turbidis piscari et fortunam suam expedire possit; "Ego" (inquit) "si in fortunis meis incendium sit excitatum, id non aqua sed ruina restinguam;" aut si quis illud Lysandri ad se transferat, qui dicere solebat; pueros placentis, viros perjuriis alliciendos; cum aliis ejusdem farinæ pravis ac perniciosis dogmatibus; quorum (ut fit in cæteris rebus omnibus) major est numerus, quam rectorum et sanorum: si quis (inquam) hujusmodi inquinata prudentia delectetur; non ierim inficias, eum (quandoquidem legibus charitatis et virtutis omnibus se ipsum solutum, fortunæ solummodo manciparit) posse, majore compendio et celerius fortunam suam promovere. Fit vero in vita, quemadmodum et in via, ut iter brevius sit fœdius et cœnosius; neque sane, ut per viam meliorem quis incedat, multa circuitione opus est.

Tantum vero abest, ut homines ad hujusmodi artes pravas se applicare oporteat; ut potius sane (si modo sint apud se, scque sustinere valeant, neque ambitionis turbine et procella in adversum rapiantur) ante oculos proponere debeant, non solum mundi chorographiam generalem illam, quod omnia sint vanitas, et vexatio spiritus; verum etiam et illam magis specialem, videlicet, quod ipsum *esse*, sejunctum a *bene esse*, maledictionis loco sit; et quo grandius sit *esse*, eo major sit maledictio; quodque amplissimum virtutis præmium sit ipsa virtus; quemadmodum et ultimum vitii supplicium est vitium ipsum; sicut egregie poëta:

> "Quæ vobis, quæ digna, viri, pro laudibus istis
> Præmia posse rear solvi? Pulcherrima primum
> Dii moresque dabunt vestri.—"

Et e contra non minus vere ille de sceleratis, "atque cum ulciscentur mores sui." Quinetiam mortales, dum in omnes partes cogitationes suas agitant et diffundunt, ut fortunis suis recte prospectum atque consultum sit, interim in mediis illis animi transcursibus ad divina judicia et providentiam æternam oculos attollere debent; quæ sæpissime impiorum machinationes et consilia prava, licet profunda, subvertit et ad nihilum redigit; secundum illud Scripturæ, "Concepit iniquitatem, et parict vanitatem." Imo, etsi injuriis et malis artibus abstineant; attamen hæc jugis et irrequieta anhelatio ad ardua fortunæ, absque cessatione, et quasi sine sabbato, tributum temporis nostri Deo debitum minime solvit: qui, ut videre est, facultatum nostrarum decimas, temporis autem septimas, exigit, et sibi seponit. Quorsum enim fuerit, os gerere in cœli sublimia erectum; mentem vero humi prostratam, et pulverem, instar serpentis, comedentem? Quod etiam ethnicos non fugit:

> "Atque affigit humo divinæ particulam auræ."

Quod si in hoc sibi quisquam adblandiatur, quod fortuna sua, utcunque eam malis artibus obtinucrit, recte uti decreverit; sicut de Augusto Cæsare et Septimio Severo solitum erat dici, debuisse illos, aut nunquam nasci, aut nunquam mori; tanta in ambitu fortunæ suæ patrarunt mala, tanta rursus, summa adepti, contulerunt bona: intelligat nihilominus, hanc malorum per bona compensationem post factum probari; consilium autem hujusmodi merito damnari. Abs re postremo nobis non fuerit, in cursu isto incitato et fervido versus fortunam nostram, frigidam paulisper aspergere, haustam e dicterio illo non ineleganta Caroli Quinti imperatoris, in institutionibus suis ad filium: imitari fortunam mores mulierum, quæ procos plus nimio ambientes plerunque superbe aversantur. Verum hoc ultimum remedium pertinet ad eos, quibus gustus ex morbo animi corruptus est. Innitantur potius homines lapidi illi, qui theologiæ et philosophiæ est tanquam angularis; quæ idem fere asserunt de eo, quod primum quæri debeat: etenim theologia edicit; "Primum quærite regnum Dei, et ista omnia adjicientur vobis." Philosophia autem simile quiddam jubet: "Primum quærite bona animi, cætera aut adcrunt, aut non oberunt." Quamvis autem hoc fundamentum, humanitus jactum, interdum locetur super arenas; quemadmodum videre est in M. Bruto, qui in eam vocem, sub exitum suum, prorupit:

> "Te colui, virtus, ut rem: ast tu nomen inane es."

At idem fundamentum, divinitus locatum, firmatur semper in petra. Hic autem doctrinam de ambitu vitæ, et simul doctrinam generalem de negotiis, concludimus.

CAPUT TERTIUM.

Partitiones doctrinæ de imperio sive republica omittuntur; tantum aditus fit ad desiderata duo, doctrinam de proferendis finibus imperii, et doctrinam de justitia universali, sive de fontibus juris.

Venio jam ad artem imperii, sive doctrinam de republica administranda: sub qua etiam œconomica continetur, ut familia sub civitate. In hac parte, sicut jam antea dixi, silentium mihi imperavi. Neque tamen prorsus diffidere debui, quin possim de illa fortasse non imperite aut inutiliter disserere: utpote qui longa experientia edoctus, et per tot munerum et honorum gradus ad amplissimum regni magistratum, favore majestatis tuæ indulgentissimo, nullo merito meo, evectus fuerim; eundemque magistratum per annos quatuor integros gesserim: et, quod pluris est, majestatis tuæ mandatis et colloquiis per annos octodecim continuos assueverim (quod etiam e stipite aliquo politicum exculpere potuisset) quique etiam, inter omnes artes, plurimum temporis in historiis et legibus contriverim. Quæ omnia non

jactantia ad posteros refero, sed quia ad literarum dignitatem nonnihil pertinere putem, quod homo quispiam, ad literas potius, quam ad aliud quicquam, natus, et ad res gerendas, nescio quo fato, contra genium suum abreptus, ad civilia tamen munera tam honorifica et ardua, sub rege prudentissimo, assumptus fuerit. Verum, si quid circa politicam posthac parturiet otium meum, erit fortasse proles, aut abortiva aut posthuma. Interim, ne, scientiis omnibus jam veluti in subselliis suis collocatis, sedes hæc tam excelsa omnino vacet, decrevi duas tantum civilis scientiæ portiones, quæ ad arcana imperii non pertinent, sed sunt naturæ magis communis, ut desiderata notare; earumque, more nostro, exempla proponere.

Cum artes imperii tria officia politica complectantur; primo, ut imperium conservetur: secundo, ut beatum efficiatur et florens: tertio, ut amplificetur, finesque ejus longius proferantur: de duobus primis officiis, maxima ex parte, egregie a nonnullis tractatum est, de tertio siletur. Illud itaque inter desiderata reponemus, et more nostro exemplum ejus proponemus, eam doctrinæ partem consulem paludatum, sive doctrinam de proferendis imperii finibus, nominantes.

EXEMPLUM TRACTATUS SUMMARII DE PROFERENDIS FINIBUS IMPERII.

Dictum Themistocles sibi ipsi applicatum, incivile certe fuit et inflatum; sin de aliis atque in genere prolatum fuisset, prudentem sane observationem et pergravem censuram complecti videatur. Rogatus in convivio, ut citharam pulsaret, respondit, Fidibus se nescire; cæterum posse oppidum parvum in magnam civitatem evehere. Ista certe verba, ad sensum politicum translata, facultates duas, multum inter se discrepantes, in iis, qui rerum gubernacula tractant, optime describunt et distinguunt. Etenim, si regum consiliarios, senatores, aliosque ad negotia publica admotos, qui usquam fuerunt, attente intueamur, reperientur profecto (licet rarissime) nonnulli, qui regnum aut civitatem e parvis ampla efficere possint; fidicines tamen sint valde imperiti: e contra autem alii quamplurimi, in cithara aut lyra (hoc est, aulicis tricis) miri artifices, qui, tantum abest, ut rempublicam amplificare possint, ut potius a natura comparati videantur ad statum reipublicæ beatum et florentem labefactandum et evertendum. Sane, artes illæ degeneres et præstigiæ, quibus sæpenumero consiliarii, atque rerum potentes, et gratiam apud principes suos, et famam in vulgus, reportant, haud aliud nomen merentur, quam peritiæ cujusdam fidiculariæ, utpote cum sint res magis gratæ in præsens, et artificibus ipsis ornamento, quam ad rerumpublicarum, quarum sunt ministri, opes et amplitudinem utiles aut accommodæ. Occurrent procul dubio et alii consiliarii, atque reipublicæ gubernatores, minime spernendi, qui sint negotiis pares, possintque res commode administrare, easque a manifestis præcipitiis et incommodis conservare; a virtute tamen illa rerumpublicarum erectrice et amplificatrice longo intervallo absunt.

Verum, qualescunque demum fuerint operarii, conjiciamus oculos in opus ipsum; qualis nimirum censeri debeat vera regnorum et rerumpublicarum magnitudo, et quibus artibus obtineri possit: dignum profecto argumentum, quod principes perpetuo in manibus habeant, et diligenter meditentur; quo, nec vires suas in majus æstimantes, inceptis se vanis et nimis arduis implicent; nec rursus easdem plus æquo despicientes, ad consilia pusillanima et meticulosa se demittant.

Magnitudo imperiorum, quoad molem et territorium, mensuræ subjicitur; quoad reditus, calculis. Numerus civium et capita, census; urbium et oppidorum multitudo et amplitudo, tabulis excipi possunt: attamen non reperitur inter civilia res errori magis obnoxia, quam verum et intrinsecum excipere valorem circa vires et copias imperii alicujus. Assimilatur regnum cœlorum non glandi, aut nuci alicui grandiori, sed grano sinapis, quod inter grana est minimum; quod tamen habet interim intra se proprietatem quandam et spiritum innatum, quo se et citius attollat, et latius diffundat: eodem modo invenire est regna et status ambitu quidem et regionum tractu valde ampla, quæ tamen ad fines ulterius proferendos, aut latius imperandum, sunt minus apta; alia contra, dimensione satis exigua, quæ tamen bases, in quibus maximæ monarchiæ inædificentur, esse possint.

1. Urbes munitæ, plena armamentaria, equorum propagines generosæ, currus armati, elephanti, machinæ atque tormenta bellica omnigena, et similia; sunt certe ista universa, nihil aliud, quam ovis indnta pelle leonina, nisi gens ipsa stirpe sua et ingenio sit fortis et militaris. Imo, nec numerus ipse copiarum multum juvat, ubi milites imbelles sunt et ignavi. Recte enim Virgilius; "Lupus numerum pecorum non curat." Exercitus Persarum in campis Arbelæ oculis Macedonum tanquam vastum hominum pelagus subjiciebatur; adeo ut duces Alexandri, nonnihil ipso spectaculo perculsi, regem interpellarent, atque ut noctu prælium committeret, ei auctores erant: quibus ille, "Nolo," inquit, "suffurari victoriam:" ea autem etiam opinione fuit facilior. Tigranes Armenius, castrametatus in quodam colle cum exercitu quadringentorum millium, cum spectaret aciem Romanorum, quæ quatuordecim millia non excessit, contra se tendentem, in dicterio illo suo sibi complacuit; "Ecce," inquit, "hominum pro legatione nimio plus quam oportet, pro pugna longe minus;" eosdem tamen, priusquam occubuisset sol, satis multos ad illum infinita strage profligandum expertus est. Innumera sunt exempla, quam sit multitudinis cum fortitudine congressus impar. Primo igitur pro re certissima et exploratissima decernatur et statuatur, quod caput omnium, quæ ad magnitudinem regni aut status spectent, sit, ut populus ipse sit stirpe et ingenio bellicosus. Atque illud magis tritum, quam verum, quod nervi belli sint pecuniæ, si desint nervi lacertorum in gente molli et effœminata. Recte enim Crœso ostentanti aurum respondit Solon: "At si quis (o rex) venerit, qui melius, quam tu, ferrum gestit, illi profecto totum hoc cedet aurum." Quare, quicunque is tandem sit princeps aut status, cujus subditi nativi et indigenæ non sint animosi et militares, potentiam suam

admodum sobrie æstimet: atque e contra principes, qui dominantur in gentes animosas et martias, norint illi satis vires suas, si sibi alias non desint. Quod attinet ad copias mercenarias (quod solet adhiberi remedium, cum copiæ nativæ desint) plena sunt omnia exemplis, quibus liquido patet, quod quicunque status illis innitetur, poterit fortasse pennas ad tempus breve nido majores extendere, sed defluent illæ paulo post.

2. Benedictio Judæ et Issacharis, in unum nunquam convenient: nimirum, ut eadem tribus aut gens sit simul et leonis catulus, et asinus procumbens inter sarcinas. Neque unquam fict, ut populus tributis oppressus, fortis existat et bellicosus. Verum est, collationes publico consensu factas, minus animos subditorum dejicere et deprimere, quam quæ ex imperio mero indicuntur. Id quod liquido videre est in tributis Germaniæ inferioris, quas excisas vocant: atque aliqua ex parte in iis, quæ subsidia nominantur apud Anglos. Etenim notandum est, sermonem jam institui de animis hominum, non de opibus. Tributa autem, quæ ex consensu conferuntur, et quæ ex imperio imponuntur, etsi eadem res sint, quoad opes exhauriendas, varie tamen omnino animos subditorum afficiunt. Statuatur igitur et hoc, populum tributis gravatum idoneum ad imperandum non esse.

3. Aspirantibus ad magnitudinem regnis et statibus, prorsus cavendum, ne nobiles et patricii, atque (quos vocamus) gencrosi, majorem in modum multiplicentur. Hoc enim eo rem deducit, ut plebs regni sit humilis et abjecta; et nihil aliud fere quam nobilium mancipia et operarii. Simile quiddam fieri videmus in sylvis cæduis; in quibus, si major, quam per est, caudicum sive arborum majorum relinquatur numerus, non renascetur sylva sincera et pura; sed major pars in vepres et dumos degenerabit. Eodem modo in nationibus, ubi numerosior justo est nobilitas, crit plebs vilis et ignava: atque eo demum res redibit, ut nec centesimum quodque caput sit ad galeam portandam idoneum: præscrtim si peditatum spectes, qui exercitus plerunque est robur præcipuum; unde succedat magno populatio, vires exiguæ. Nusquam gentium, hoc, quod dico, luculentius comprobatum est, quam exemplis Angliæ et Galliæ: quarum Anglia, quamvis territorio et numero incolarum longe inferior, potiores tamen partes fere semper in bellis obtinuit; hanc ipsam ob causam, quod apud Anglos coloni, et inferiores ordinis homines, militiæ habiles sint, rustici Galliæ non item. Qua in re mirabili quadam et profunda prudentia excogitatum est ab Henrico septimo Angliæ rege (id quod in "Vitæ ejus historia" fusius tractavimus) ut prædia minora, atque domus agricolationis instituerentur, quæ haberant certum eumque mediocrem agri modum annexum, qui distrahi non possit; eo fine, ut ad victum liberaliorem sufficiat; utque agricultura ab iis exerceretur, qui domini fuerint fundi, aut saltem usufructuarii, non conductitii aut mercenarii. Nam ita demum characterem illum, quo antiquam Italiam insignivit Virgilius, merebitur regio aliqua:

"Terra potens armis, atque ubere gleba."

Neque prætereunda est illa pars populi (quæ Angliæ fere est peculiaris, nec alibi, quod scio, in usu, nisi forte apud Polonos) famuli scilicet nobilium: hujus enim generis etiam inferiores, quoad peditatum, agricolis ipsis minime cedunt. Quare certissimum est, quod magnificentia et splendor ille hospitalis, atque famulitia, et veluti satellitia ampla, quæ in more sunt apud nobiles et generosos in Anglia, ad potentiam militarem apprime conducant: ubi contra, nobilium obscura, et magis privata, et in se reducta vitæ ratio copias militares minuit.

4. Danda est omnino opera, ut arbor ista monarchiæ, qualis fuit Nebuchadnezzaris, truncum habeat satis amplum et robustum, ad ramos suos et frondes sustentandos: hoc est, ut numerus indigenarum, ad subditos extraneos cohibendos, satis superque sufficiat. Illi igitur status ad imperii magnitudinem bene comparati sunt, qui jus civitatis facile et libenter largiuntur. Vana siquidem fuerit opinio, posse manipulum hominum, utcunque animis et consilio excellant, regiones nimio plus amplas et spatiosas imperii jugo cohibere et frænare. Id ad tempus fortasse facere possint, sed diuturnitatem hæc res non assequitur. Spartani parci fuerunt, et difficiles in cooptandis novis civibus. Unde; donec intra parvos limites dominati sunt, res eorum firmæ fuerunt et stabiles: at postquam limites suos cœpissent proferre, et latius dominari, quam ut stirps Spartanorum turbam exterorum imperio commode coërcere posset, potentia eorum subito corruit. Nulla unquam respublica sinus suos ad novos cives recipiendos tam profuse laxavit, quam respublica Romana. Itaque par erat instituto tam prudenti fortuna, cum in imperium toto orbe amplissimum succreverint. Moris apud eos erat jus civitatis prompte elargiri; idque in supremo gradu: hoc est, non solum jus commercii, jus connubii, jus hæreditatis; verum etiam jus suffragii, et jus petitionis, sive honorum: hocque rursus, non singulis tantum personis, sed totis familiis, imo civitatibus, et nonnunquam integris nationibus, communicarunt. Huc adde consuetudinem deducendi colonias, quibus Romanæ stirpes in solum exterum transplantabantur. Quæ duo instituta si simul componas, dices profecto non Romanos se diffudisse super universum orbem; sed contra, orbem universum se diffudisse super Romanos: quæ securissima proferendi imperii est ratio. Subit mirari sæpius imperium Hispanorum; quod tam paucis indigenis tot regna et provincias amplexari et frænare possit. Ac certe Hispaniæ ipsæ pro arboris stemmate satis grandi haberi debent, cum longe ampliorem contineant regionum tractum, quam Romæ aut Spartæ, sub initiis suis contigerat. Porro, quanquam jus civitatis satis parce soleant Hispani impertire, quod proximum tamen est, faciunt; quippe qui cujuscunque nationis homines ad militiam suam ordinariam promiscue admittant: quinetiam summum belli imperium haud raro ad duces nationc non Hispanos deferunt. Attamen et illam ipsam videntur non ita pridem indigenarum paucitatem sensisse, eique succurrere cupiisse; ut ex pragmatica sanctione, hoc anno promulgata, cernere est.

5. Certissimum est, artes mechanicas sedentarias, quæ non sub dio, sed sub tecto exercentur, atque

manufacturas delicatas (quæ digitum, potius quam brachium, requirunt) sua natura militaribus animis esse contrarias. In universum, populi bellicosi feriari gaudent, et pericula, quam labores, minus exhorrent. Atque in hoc ingenio suo non sunt admodum reprimendi, si animos ipsorum in vigore conservare cordi nobis sit. Magno itaque adjumento Spartæ, Athenis, Romæ, aliisque antiquis rebuspublicis fuit, quod habuerint non ingenuos, sed servos plerunque, quorum laboribus istiusmodi opificia expediebantur. Verum mancipiorum usus, post legem Christianam receptam, maxima ex parte abiit in desuetudinem. Huic vero rei proximum est, ut artes istæ alienigenis tantum permittantur; qui propterea alliciendi, aut saltem facile recipiendi sunt. Nativorum autem plebs ex tribus generibus hominum constare debet; nempe, ex agricolis; famulis ingenuis; et artificibus: quorum opera robur et lacertos viriles postulant; cujusmodi sunt fabri ferrarii, lapidarii, lignarii, et similes; non annumerando militiam describptam.

6. Ante omnia ad imperii magnitudinem confert, ut gens aliqua armorum studium profiteatur, tanquam deeus suum, et institutum vitæ primarium, et in præcipuo honore habitum. Quæ enim a nobis adhue dieta sunt, ad habilitates tantum erga arma spectant: quorsum autem habilitas, si non rei ipsi incumbitur, ut producatur in actum? Romulus (ut narrant, aut fingunt) postquam e vivis excesserat, illud civibus suis legavit, ut ante omnia rem militarem colerent, unde in caput orbis terrarum urbs eorum insurgeret. Imperii Spartani fabrica universa (non nimis prudenter quidem, sed diligenter tamen) ad illum finem et seopum composita est et eonstrueta, ut eives sui belligeratores essent. Persarum et Macedonum idem erat institutum, sed non tam constans aut diuturnum. Britanni, Galli, Germani, Gothi, Saxones, Normanni, et nonnulli alii, etiam ad tempus armis se præcipue dedicrunt. Tureæ idem institutum, lege sua hand paululum extimulati, hodie retinent, sed magna eum militiæ suæ (ut nunc est) declinatione. In Europa Christiana, gens, quæ illud adhue retinet et profitetur, soli sunt Hispani. Verum res est tam liquida et manifesta, unumquemque in eo proficere maxime, in quo plurimum impendit studii, ut verbis non indigeat. Satis sit innuisse, desperandum omnino alicui nationi esse, quæ non ex professo arma et militiam colat, iisque præcipue studeat et incumbat, sibi veluti ultro obventurum insignem aliquam imperii magnitudinem: contra autem, certissimum esse temporis oraculum, nationes illas, quæ in armorum professione et studiis diutius permanserint (id quod Romani Tureæque potissimum fecere) miros in imperio amplificando faeere progressus. Quin et illæ, quæ belliea gloria per unius tantummodo seculi spatium floruere; inde tamen, unico illo seculo, eam imperii amplitudinem asseeutæ sunt, quam longo post tempore, etiam remissa illa armorum disciplina, retinuerunt.

7. Præcepto præcedenti affine est; ut status quis utatur ejusmodi legibus et consuetudinibus, quæ justas illi causas, aut saltem prætextus, arma capessendi, tanquam in promptu ministrent. Etenim, ea est insita animis hominum justitiæ apprehensio, ut bellum (quod tot sequuntur calamitates) nisi gravem ob causam, saltem speciosam, inferre abstineant. Tureis præsto est semper, et ad nutum, belli causa; propagatio scilicet legis et sectæ suæ. Romani, quanquam pro magno decore imperatoribus apud eos fuerit, si fines imperii ipsorum protulissent, tamen ob hanc solam causam, ut fines proferrentur, nunquam bella susceperunt. Aspiranti igitur ad imperium nationi illud in more sit; ut sensum habeat vividum et acrem injuriæ alicujus, vel subditis suis limitaneis, vel mercatoribus, vel publicis ministris, illatæ; neque a prima provocatione diutius torpeat aut tardet. Item, prompta sit et alacris ad auxilia mittenda sociis suis et fœderatis: id quod perpetuum erat apud Romanos: adeo ut, si forte in populum fœderatum, cui etiam eum aliis fœdus defensivum intercederet, hostilis impressio facta esset; atque ille a plurimis suppetias peteret; Romani omnium primi semper adessent, beneficii decus nemini præripiendum relinquentes. Quod vero attinet ad bella, antiquis temporibus, propter statuum conformitatem quandam, aut correspondentiam tacitam, gesta, non video, in quo jure illa fundata sint. Talia fuerunt bella, quæ a Romanis suscepta erant ad Græciam in libertatem vindicandam: talia a Lacedæmoniis et Atheniensibus, ad constituendas aut evertendas democratias et oligarchias: talia quandoque illata sunt a rebuspublicis aut principibus, sub prætextu, subditos alienos protegendi, et a tyrannide liberandi. Ad rem præsentem sufficiat, ut illud deeernatur: non esse expeetandam statui alicui imperii amplitudinem, nisi ad quamvis oceasionem justam se armandi protinus expergiscatur.

8. Nullum omnino corpus, sive sit illud naturale sive politicum, absque exercitatione sanitatem suam tueri queat. Regno autem, aut reipublicæ, justum atque honorificum bellum loco salubris exercitationis est. Bellum civile profecto instar caloris febrilis est; at bellum externum instar caloris ex motu, qui valetudini imprimis conducit. Ex præe enim deside atque torpente et emolliuntur animi, et corrumpuntur mores. Sed utcunque res se habeat, quatenus ad alicujus status felicitatem, magnitudinis proculdubio interest, ut quasi semper in armis sit. Atque exercitus veteranus, perpetno tanquam sub vexillis habitus, etsi res sit magni proculdubio sumptus et impensæ, attamen ejusmodi est, ut statui alicui quasi arbitrium rerum inter vicinos, aut saltem plurimum existimationis ad omnia conferat. Id quod insigniter cernere est in Hispanis, qui jam per annos centum et viginti exereitum veteranum, ad aliquas partes, licet non semper ad easdem, aluerunt.

9. Maris dominium, monarehiæ quædam epitome est. Cicero, de Pompeii contra Cæsarem apparatu, scribens ad Atticum: "Consilium," inquit, "Pompeii, plane Themistocleum est: putat enim, qui mari potitur, eum rerum potiri." Atque Cæsarem Pompeius proculdubio delassasset et attrivisset, nisi inani fiducia inflatus, ab illo inecpto destitisset. Prælia navalia, quanti fuerint momenti, ex multis exemplis patet. Pugna ad Actium orbis imperium determinavit. Pugna ad insulas Cursolares circulum in naribus Tureæ posuit. Multoties certe evenit, ut victoriæ navales finem summæ belli attulerint. Sed hoc factum est, cum aleæ hujusmodi prælioruni

totius belli fortuna commissa est. Illud minime dubium, quod qui maris potitur dominio, in magna libertate agit, et tantum, quantum velit, de bello sumere potest: ubi contra, qui terrestribus copiis est superior, nihilominus plurimis angustiis conflictatur. At hodie, atque apud nos Europæos, si unquam, aut uspiam, potentia navalis (quæ quidem huic regno Britanniæ in dotem cessit) summi ad rerum fastigia momenti est; tum quia pleraque Europæ regna mediterranea simpliciter non sunt, sed maxima ex parte mari cincta; tum etiam, quia utriusque Indiæ thesauri et opes imperio maris veluti accessorium quiddam existunt.

10. Bella moderna, veluti in tenebris gestu, censeri possunt, præ gloria et decore vario, quæ in hominibus militaribus, priscis temporibus, a rebus bellicis resilire solebant. Habemus hodie, fortasse ad animos faciendos, ordines quosdam honorificos militiæ, qui tamen jam facti sunt et armis et togæ communes. Etiam in scutis gentilitiis stemmata nonnulla habemus: insuper hospitia quædam publica, militibus emeritis et mutilatis destinata, et hujusmodi. Verum, apud veteres, in locis, ubi victoriæ partæ sunt, extructu trophæa; laudationes funebres, et monumenta magnifica occumbentium in bello; coronæ civicæ, militares, singulis eanecssæ; nomen ipsum imperatoris, quod postea reges maximi a belli ducibus mutuati sunt; redeuntium ducum, bellis prospere confectis, celebres triumphi; donativa, atque largitiones ingentes in milites, sub exercituum dimissionem: Hæc (inquam) tot et tanta fuerunt, et tam insigni splendore coruscantia, ut pectoribus mortalium, etiam maxime conglaciatis, igniculos subdere, eaque ad bellum inflammare, potuerint. Ante omnia vero mos ille triumphandi apud Romanos, non res erat ex pompa, aut spectaculum quoddam inane, sed inter prudentissima plane nobilissimaque instituta numerandus: utpote qui in se hæc tria haberet; ducum decus et gloriam; ærarii ex spoliis locupletationem; et donativa militum. Verum honor triumphi fortasse monarchiis non competit, præterquam in personis regis ipsius, aut filiorum regis. Quod etiam temporibus imperatorum Romæ obtinuit; qui honorem ipsum triumphi, sibi et filiis suis, de bellis, quæ præsentes ipsi confecerant, tanquam peculiarem reservarunt: vestimenta autem solummodo, et insignia triumphalia, aliis ducibus indulserunt.

Verum, ut sermones hos claudamus; nemo est (ut testatur sacra Scriptura) "qui, sollicite cogitando, potest apponere ad staturam suam cubitum unum;" in pusillo scilicet corporis humani modulo: Cæterum, in magna regnorum et rerumpublicarum fabrica imperium amplificare et fines proferre, reges penes et dominantes est. Nam prudenter introducendo leges, instituta, et consuetudines, quales jam proposuimus, et alias his similes, posteris, et seculis futuris, magnitudinis sementem fecerint. Verum ista consilia apud principes raro tractantur, sed res fortunæ plerunque committitur.

Atque hæc habuimus, quæ de proferendis imperii finibus in præsentia occurrunt. Verum quorsum istu commentatio; cum monarchia Romana futura sit inter mundanas (ut creditur) ultima? Nisi quod nobis, instituto nostro fidis, neque uspiam de via declinantibus (quandoquidem amplificatio imperii fuerit inter officia tria politicæ tertium) illud omnino prætermittere non licuerit. Restat jam desideratum alterum ex iis, quæ posuimus, duobus, nimirum, de justitia universali, sive de fontibus juris.

Qui de legibus scripserunt, omnes, vel tanquam philosophi, vel tanquam jurisconsulti, argumentum illud tractaverunt. Atque philosophi proponunt multa, dictu pulchra, sed ab usu remota. Jurisconsulti autem, suæ quisque patriæ legum, vel etiam Romanarum, aut Pontificiarum, placitis obnoxii et addicti, judicio sincero non utuntur, sed tanquam e vinculis sermocinantur. Certe cognitio ista ad viros civiles proprie spectat; qui optime norunt, quid ferat societas humana, quid salus populi, quid æquitas naturalis, quid gentium mores, quid rerumpublicarum formæ diversæ: ideoque possint de legibus, ex principiis et præceptis, tam æquitatis naturalis, quam politicæ, decernere. Quamobrem id nunc agatur, ut fontes justitiæ et utilitatis publicæ petantur, et in singulis juris partibus character quidam et idea justi exhibeatur, ad quam particularium regnorum et rerumpublicarum leges probare, atque inde emendationem moliri, quisque, cui hoc cordi erit et curæ, possit. Hujus igitur rei, more nostro, exemplum in uno titulo proponemus.

EXEMPLUM TRACTATUS DE JUSTITIA UNIVERSALI, SIVE DE FONTIBUS JURIS, IN UNO TITULO, PER APHORISMOS.

PROŒMIUM.

APHORISMUS I.

In societate civili aut lex aut vis valet. Est autem et vis quædam legem simulans: et lex nonnulla magis vim sapiens, quam æquitatem juris. Triplex est igitur injustitiæ fons: vis mera; illaqueatio malitiosa prætextu legis; et acerbitas ipsius legis.

II.

Firmamentum juris privati tale est. Qui injuriam facit, re utilitatem aut voluptatem capit, exemplo periculum. Cæteri utilitatis aut voluptatis illius participes non sunt, sed exemplum ad se pertinere putant. Itaque facile coëunt in consensum, ut caveatur sibi per leges; ne injuriæ per vices ad singulos redeant. Quod si ex ratione temporum, et communione culpæ, id eveniat ut pluribus et potentioribus, per legem aliquam, periculum creetur, quam caveatur, factio solvit legem; quod et sæpe fit.

III.

At jus privatum sub tutela juris publici latet. Lex enim cavet civibus, magistratus legibus. Magistratuum autem auctoritas pendet ex majestate imperii, et fabrica politiæ, et legibus fundamentalibus. Quare, si ex illa parte sanitas fuerit, et recta constitutio, leges erunt in bono usu; sin minus, parum in iis præsidii erit.

IV.

Neque tamen jus publicum ad hoc tantum spectat, ut addatur tanquam custos juri privato, ne illud

violetur, atque ut cessent injuriæ; sed extenditur etiam ad religionem, et arma, et disciplinam, et ornamenta, et opes, denique ad omnia circa bene esse civitatis.

V.

Finis enim et scopus, quem leges intueri, atque ad quem jussiones et sanctiones suas dirigere debent, non alius est, quam ut cives feliciter degant: id fiet, si pietate et religione recte instituti; moribus honesti; armis adversus hostes externos tuti; legum auxilio adversus seditiones et privatas injurias muniti; imperio et magistratibus obsequentes; copiis et opibus locupletes et florentes fuerint. Harum autem rerum instrumenta et nervi sunt leges.

VI.

Atque hunc finem optimæ leges assequuntur; plurimæ vero ipsarum aberrant. Leges enim mirum in modum, et maximo intervallo, inter se differunt: ut aliæ excellant, aliæ mediocriter se habeant, aliæ prorsus vitiosæ sint. Dictabimus igitur pro judicii nostri modulo quasdam tanquam legum leges; ex quibus informatio peti possit, quid in singulis legibus bene aut perperam positum aut constitutum sit.

VII.

Antequam vero ad corpus ipsum legum particularium deveniamus; perstringemus paucis virtutes et dignitates legum in genere. Lex bona censeri possit, quæ sit intimatione certa, præcepto justa, executione commoda; cum forma politiæ congrua, et generans virtutem in subditis.

TITULUS I.

DE PRIMA DIGNITATE LEGUM, UT SINT CERTÆ.

APHORISMUS VIII.

Legis tantum interest ut certa sit, ut absque hoc nec justa esse possit. "Si enim incertam vocem det tuba, quis se parabit ad bellum?" Similiter, si incertam vocem det lex, quis se parabit ad parendum? Ut moneat igitur oportet, prinsquam feriat. Etiam illud recte positum est: optimam esse legem, quæ minimum relinquit arbitrio judicis: id quod certitudo ejus præstat.

IX.

Duplex legum incertitudo; altera, ubi lex nulla præscribitur; altera, ubi ambigua et obscura. Itaque de casibus omissis a lege primo dicendum est; ut in his etiam inveniatur aliqua norma certitudinis.

DE CASIBUS OMISSIS A LEGE.

APHORISMUS X.

Angustia prudentiæ humanæ, casus omnes, quos tempus reperit, non potest capere. Non raro itaque se ostendunt casus omissi et novi. In hujusmodi casibus triplex adhibetur remedium, sive supplementum: vel per processum ad similia; vel per usum exemplorum, liect in legem non coaluerint; vel per jurisdictiones, quæ statuunt ex arbitrio boni viri, et secundum discretionem sanam, sive illæ curiæ fuerint prætoriæ, sive censoriæ.

DE PROCESSU AD SIMILIA, ET EXTENSIONIBUS LEGUM.

APHORISMUS XI.

In casibus omissis deducenda est norma legis a similibus; sed caute, et cum judicio: circa quod servandæ sunt regulæ sequentes. Ratio prolifica, consuetudo sterilis esto, nec generet casus. Itaque quod contra rationem juris receptum est, vel etiam ubi ratio ejus est obscura, non trahendum est ad consequentiam.

XII.

Bonum publicum insigne rapit ad se casus omissos. Quamobrem, quando lex aliqua reipublicæ commoda notabiliter et majorem in modum intuetur et procurat, interpretatio ejus extensiva esto, et amplians.

XIII.

Durum est, torquere leges, ad hoc, ut torqueant homines. Non placet igitur extendi leges pœnales, multo minus capitales, ad delicta nova. Quod si crimen vetus fuerit, et legibus notum, sed prosecutio ejus incidat in casum novum, a legibus non provisum; omnino recedatur a placitis juris, potiusquam delicta maneant impunita.

XIV.

In statutis, quæ jus commune (præsertim circa ea, quæ frequenter incidunt, et diu coaluerunt) plane abrogant, non placet procedi per similitudinem ad casus omissos. Quando enim respublica tota lege diu caruerit, idque in casibus expressis; parum periculi est, si casus omissi expectent remedium a statuto novo.

XV.

Statuta, quæ manifesto temporis leges fuere, atque ex occasionibus reipublicæ tunc invalescentibus natæ; mutata ratione temporum, satis habent, si se in propriis casibus sustinere possint: præposterum autem esset, si ad casus omissos ullo modo traherentur.

XVI.

Consequentiæ non est consequentia; sed sisti debet extensio intra casus proximos: alioqui labetur paulatim ad dissimilia, et magis valebunt acumina ingeniorum, quam auctoritates legum.

XVII.

In legibus et statutis brevioris styli, extensio facienda est liberius. At in illis, quæ sunt enumerativa casuum particularium, cautius. Nam ut exceptio firmat vim legis, in casibus non exceptis; ita enumeratio infirmat eam, in casibus non enumeratis.

XVIII.

Statutum explanatorium claudit rivos statuti prioris; nec recipitur postea extensio in alterutro statuto. Neque enim facienda est super-extensio a judice, ubi semel cœpit fieri extensio a lege.

XIX.

Solennitas verborum et actorum non recipit extensionem ad similia. Perdit enim naturam solennis, quod transit a more ad arbitrium: et introductio novorum, corrumpit majestatem veterum.

XX.

Proclivis est extensio legis ad casus post-natos, qui in rerum natura non fuerunt tempore legis latæ. Ubi enim casus exprimi non poterat, quia tunc nullus erat, casus omissus habetur pro expresso, si similis fuerit ratio.

Atque de extensionibus legum, in casibus omissis, hæc dicta sint: nunc de usu exemplorum dicendum.

DE EXEMPLIS, ET USU EORUM.

APHORISMUS XXI.

De exemplis jam dicendum est, ex quibus jus hauriendum sit, ubi lex deficit. Atque de consuetudine, quæ legis species est, deque exemplis, quæ per frequentem usum in consuetudinem transierunt, tanquam legem tacitam, suo loco dicemus. Nunc autem de exemplis loquimur, quæ raro et sparsim interveniunt, nec in legis vim coaluerunt; quando et qua cautione, norma juris ab ipsis petenda sit, cum lex deficiat.

XXII.

Exempla a temporibus bonis et moderatis petenda sunt, non tyrannicis, aut factiosis, aut dissolutis. Hujusmodi exempla temporis partus spurii sunt; et magis nocent, quam docent.

XXIII.

In exemplis, recentiora habenda sunt pro tutioribus. Quod enim paulo ante factum est, unde nullum sit secutum incommodum, quid ni iterum repetatur? Sed tamen minus habent auctoritatis recentia. Et si forte res in melius restitui opus sit, recentia exempla magis seculum suum sapiunt, quam rectam rationem.

XXIV.

At vetustiora exempla caute et cum delectu recipienda: decursus siquidem ætatis multa mutat, ut quod tempore videatur antiquum, id perturbatione, et inconformitate ad præsentia, sit plane novum. Medii itaque temporis exempla sunt optima, vel etiam talis temporis, quod cum tempore currente plurimum conveniat; quod aliquando præstat tempus remotius, magis quam in proximo.

XXV.

Intra fines exempli, vel citra potius, se cohibeto, nec illos ullo modo excedito. Ubi enim non adest norma legis, omnia quasi pro suspectis habenda sunt: itaque ut in obscuris, minimum sequitor.

XXVI.

Cavendum ab exemplorum fragmentis et compendiis: atque integrum exemplum, et universus ejus processus introspiciendus. Si enim ineivile sit, nisi tota lege perspecta, de parte ejus judicare, multo magis hoc valere debet in exemplis; quæ ancipitis sunt usus, nisi valde quadrent.

XXVII.

In exemplis plurimum interest, per quas manus transierint et transacta sint. Si enim apud scribas tantum, et ministros justitiæ, ex cursu curiæ, absque notitia manifesta superiorum, obtinuerint; aut etiam apud errorum magistrum populum; conculcanda sunt, et parvi facienda. Sin apud senatores, aut judices, aut curias principales, ita sub oculis posita fuerint, ut necesse fuerit illa, approbatione judicum saltem tacita, munita fuisse, plus dignationis habent.

XXVIII.

Exemplis, quæ publicata fuerint, uteunque minus fuerint in usu, cum tamen sermonibus et disceptationibus hominum agitata et ventilata extiterint, plus auctoritatis tribuendum: quæ vero in scriniis et archivis manserunt tanquam sepulta, et palam in oblivionem transierunt, minus. Exempla enim, sicut aquæ, in profluente sanissima.

XXIX.

Exempla, quæ ad leges spectant, non placet ab historicis peti, sed ab actis publicis et traditionibus diligentioribus. Versatur enim infelicitas quædam inter historicos vel optimos, ut legibus et actis judicialibus non satis immorentur; aut si forte diligentiam quandam adhibuerint, tamen ab authenticis longe varient.

XXX.

Exemplum, quod ætas contemporanea aut proxima respuit, eum casus subinde recurreret, non facile admittendum est. Neque enim tantum pro illo facit, quod homines illud quandoque usurparunt; quam contra, quod experti reliquerunt.

XXXI.

Exempla in consilium adhibentur, non utique jubent, aut imperant. Igitur ita regantur, ut auctoritas præteriti temporis flectatur ad usum præsentis.

Atque de informatione ab exemplis, ubi lex deficit, hæc dicta sint. Jam dicendum de curiis prætoriis et censoriis.

DE CURIIS PRÆTORIIS ET CENSORIIS.

APHORISMUS XXXII.

Curiæ sunto et jurisdictiones, quæ statuant ex arbitrio boni viri et discretione sana, ubi legis norma deficit. Lex enim (ut antea dictum est) non sufficit casibus; sed ad ea, quæ plerunque accidunt, aptatur: sapientissima autem res tempus (ut ab antiquis dictum est) et novorum casuum quotidie auctor et inventor.

XXXIII.

Interveniunt autem novi casus et in criminalibus, qui pœna indigent; et in civilibus, qui auxilio. Curias, quæ ad priora illa respiciunt, censorias; quæ ad posteriora, prætorias appellamus.

XXXIV.

Habento curiæ censoriæ jurisdictionem et potestatem, non tantum nova delicta puniendi, sed etiam pœnas a legibus constitutas pro delictis veteribus augendi, si casus fuerint odiosi et enormes, modo non sint capitales. Enorme enim, tanquam novum est.

XXXV.

Habeant similiter curiæ prætoriæ potestatem, tam subveniendi contra rigorem legis, quam supplendi defectum legis. Si enim porrigi debet remedium ei, quem lex præteriit, multo magis ei, quem vulneravit.

XXXVI.

Curiæ istæ censoriæ et prætoriæ omnino intra casus enormes et extraordinarios se continento, nec jurisdictiones ordinarias invadunto; ne forte tendat res ad supplantationem legis, magis quam ad supplementum.

XXXVII.

Jurisdictiones istæ in supremis tantum curiis residento, nec ad inferiores communicantor. Parum enim abest a potestate leges condendi, potestas eas supplendi, aut extendendi, aut moderandi.

XXXVIII.

At curiæ illæ uni viro ne committantur, sed ex pluribus constent. Nec decreta exeant cum silentio; sed judices sententiæ suæ rationes adducant, idque palam, atque adstante corona: ut quod ipsa potestate sit liberum, fama tamen et existimatione sit circumscriptum.

XXXIX.

Rubricæ sanguinis ne sunto; nec de capitalibus, in quibuscunque curiis, nisi ex lege nota et certa, pronunciato. Indixit enim mortem Deus ipse prius; postea inflixit. Nec vita eripienda nisi ei, qui se in suam vitam peccare prius nosset.

XL.

In curiis censoriis calculum tertium dato; ut judicibus non imponatur necessitas, aut absolvendi, aut condemnandi; sed etiam ut "Non liquere" pronunciare possint. Etiam censoria non tantum pœna, sed et nota esto: scilicet, quæ non infligat supplicium, sed, aut in admonitionem desinat, aut reos ignominia levi, et tanquam rubore castiget.

XLI.

In curiis censoriis, omnium magnorum criminum et scelerum actus inchoati et medii puniuntor; licet non sequatur effectus consummatus: isque sit earum curiarum usus vel maximus: cum et severitatis intersit, initia scelerum puniri; et clementiæ, perpetrationem eorum (puniendo actus medios) intercipi.

XLII.

Cavendum in primis, ne in curiis prætoriis præbeatur auxilium in casibus, quos lex non tam omisit, quam pro levibus contempsit, aut pro odiosis remedio indignos judicavit.

XLIII.

Maxime omnium interest certitudinis legum (de qua nunc agimus) ne curiæ prætoriæ intumescant et exundent in tantum, ut prætextu rigoris legum mitigandi, etiam robur et nervos iis incidant, aut laxent; omnia trahendo ad arbitrium.

XLIV.

Decernendi contra statutum expressum, sub ullo æquitatis prætextu, curiis prætoriis jus ne esto. Hoc enim si fieret, judex prorsus transiret in legislatorem, atque omnia ex arbitrio penderent.

XLV.

Apud nonnullos receptum est, ut jurisdictio, quæ decernit secundum æquum et bonum, atque illa altera, quæ procedit secundum jus strictum, iisdem curiis deputentur: apud alios autem, ut diversis. Omnino placet curiarum separatio. Neque enim servabitur distinctio casuum, si fiat commixtio jurisdictionum: sed arbitrium legem tandem trahet.

XLVI.

Non sine causa in usum venerat apud Romanos album prætoris, in quo præscripsit et publicavit quomodo ipse jus dicturus esset. Quo exemplo judices in curiis prætoriis, regulas sibi certas (quantum fieri potest) proponere, easque publice affigere debent. Etenim optima est lex, quæ minimum relinquit arbitrio judicis; optimus judex, qui minimum sibi.

Verum de curiis istis fusius tractabimus, cum ad locum de judiciis veniemus; obiter tantum jam locuti de iis, quatenus expediant, et suppleant omissa a lege.

DE RETROSPECTIONE LEGUM.

APHORISMUS XLVII.

Est et aliud genus supplementi casuum omissorum, cum lex legem supervenit, atque simul casus omissos trahit. Id fit in legibus, sive statutis, quæ retrospiciunt, ut vulgo loquuntur: cujus generis leges raro, et magna cum cautione sunt adhibendæ: neque enim placet Janus in legibus.

XLVIII.

Qui verba aut sententiam legis captione et fraude eludit et circumscribit, dignus est qui etiam a lege sequente innodetur. Igitur in casibus fraudis et evasionis dolosæ justum est, ut leges retrospiciant, atque alteræ alteris in subsidiis sint; ut qui dolos meditatur et eversionem legum præsentium, saltem a futuris metuat.

XLIX.

Leges, quæ actorum et instrumentorum veras intentiones contra formularum aut solennitatem defectus roborant et confirmant, rectissime præterita complectuntur: legis enim, quæ retrospicit, vitium vel præcipuum est, quod perturbet. At hujusmodi leges confirmatoriæ ad pacem et stabilimentum eorum, quæ transacta sunt, spectant. Cavendum tamen est, ne convellantur res judicatæ.

L.

Diligenter attendendum, ne eæ leges tantum ad præterita respicere putentur, quæ anteacta infirmant: sed et eæ, quæ futura prohibent et restringunt, cum præteritis necessario connexa. Veluti, si quæ lex artificibus aliquibus interdicat, ne mercimonia sua in posterum vendant; hæc sonat in posterum, sed operatur in præteritum: neque enim illis alia ratione victum quærere jam integrum est.

LI.

Lex declaratoria omnis, licet non habet verba de præterito, tamen ad præterita, ipsa vi declarationis, omnino trahitur. Non enim tum incipit interpretatio cum declaratur, sed efficitur tanquam contemporanea ipsi legi. Itaque leges declaratorias ne ordinato, nisi in casibus, ubi leges cum justitia retrospicere possint.

Hic vero eam partem absolvimus, quæ tractat de incertitudine legum ubi invenitur lex nulla. Jam dicendum est de altera illa parte, ubi scilicet lex extat aliqua, sed perplexa et obscura.

DE OBSCURITATE LEGUM.

APHORISMUS LII.

Obscuritas legum a quatuor rebus originem ducit: vel ab accumulatione legum nimia, præsertim ad mixtis obsoletis; vel a descriptione earum ambigua, aut minus perspicua et dilucida; vel a modis enucleandi juris neglectis, aut non bene institutis; vel denique a contradictione et vacillatione judiciorum.

DE ACCUMULATIONE LEGUM NIMIA.

APHORISMUS LIII.

Dicit propheta; "Plnet super eos laqueos." Non sunt autem pejores laquei, quam laquei legum, præsertim pœnalium; si numero immensæ et temporis decursu inutiles, non lucernam pedibus præbeant, sed retia potius objiciant.

LIV.

Duplex in usum venit statuti novi condendi ratio. Altera, statuta priora circa idem subjectum confirmat et roborat; dein nonnulla addit aut mutat. Altera abrogat et delet cuncta, quæ ante ordinata sunt, et de integro legem novam et uniformem substituit. Placet posterior ratio. Nam ex priore ratione, ordinationes deveniunt complicatæ et perplexæ: et quod instat agitur sane, sed corpus legum interim redditur vitiosum. In posteriore autem major certe est adhibenda diligentia, dum de lege ipsa deliberatur; et anteacta scilicet evolvenda et pensitanda, antequam lex feratur: sed optime procedit per hoc legum concordia in futurum.

LV.

Erat in more apud Athenienses, ut contraria legum capita (quæ antinomias vocant) quotannis a sex viris examinarentur, et quæ reconciliari non poterant, proponerentur populo, ut de illis certum aliquid statueretur. Ad quorum exemplum ii, qui potestatem in singulis politiis legum condendarum habent, per triennium, aut quinquennium, aut, prout videbitur, antinomias retractanto. Eæ autem a viris, ad hoc delegatis, prius inspiciantur et præparentur, et demum comitiis exhibeantur; ut quod placuerit, per suffragia stabiliatur et figatur.

LVI.

Neque vero contraria legum capita reconciliandi, et omnia (ut loquuntur) salvandi, per distinctiones subtiles et quæsitas, nimis sedula aut anxia cura esto. Ingenii enim hæc tela est: atque utcunque modestiam quandam et reverentiam præ se ferat, inter noxia tamen censenda est; utpote quæ reddat corpus universum legum varium et male consutum. Melius est prorsus ut succumbant deteriora, et meliora stent sola.

LVII.

Obsoletæ leges, et quæ abierunt in desuetudinem, non minus quam antinomiæ, proponantur a delegatis ex officio tollendæ. Cum enim statutum expressum regulariter desuetudine non abrogetur, fit ut ex contemptu legum obsoletarum fiat nonnulla auctoritatis jactura etiam in reliquis: et sequitur tormenti illud genus Mezentii, ut leges vivæ in complexu mortuarum perimantur. Atque omnino cavendum est a gangræna in legibus.

LVIII.

Quin et in legibus et statutis obsoletis, nec noviter promulgatis, curiis prætoriis interim contra eas decernendi jus esto. Licet enim non male dictum sit, neminem oportere legibus esse sapientiorem, tamen intelligatur hoc de legibus, cum evigilent, non cum dormitent. Contra recentiora vero statuta (quæ juri publico nocere deprehenduntur) non utique prætoribus, sed regibus et sanctioribus consiliis, et supremis potestatibus auxilium prædendi jus esto: earum executionem per edicta aut acta suspendendo, donec redeant comitia, aut hujusmodi cœtus, qui potestatem habeant eas abrogandi; ne salus populi interim periclitetur.

DE NOVIS DIGESTIS LEGUM.

APHORISMUS LIX.

Quod si leges aliæ super alias accumulatæ, in tam vasta excreverint volumina, aut tanta confusione laboraverint, ut eas de integro retractare, et in corpus sanum et habile redigere ex usu sit; id ante omne agito, atque opus ejusmodi opus heroicum esto: atque auctores talis operis inter legislatores et instauratores rite et merito numerantor.

LX.

Hujusmodi legum expurgatio, et digestum novum, quinque rebus absolvitur. Primo, omittantur obsoleta, quæ Justinianus antiquas fabulas vocat. Deinde ex antinomiis recipiantur probatissimæ, aboleantur contrariæ. Tertio homoionomiæ, sive leges quæ idem sonant, atque nil aliud sunt quam iterationes ejusdem rei, expungantur; atque una quæpiam ex iis, quæ maxime est perfecta, retineatur

vice omnium. Quarto, si quæ legum nihil determinent, sed quæstiones tantum proponant, easque relinquant indecisas, similiter faecssant. Postremo, quæ verbosæ inveniuntur et nimis prolixæ, contrahantur magis in arctum.

LXI.

Omnino vero ex usu fuerit, in novo digesto legum, leges pro jure eummuni receptas, quæ tanquam immemoriales sunt in origine sua, atque ex altera parte statuta de tempore in tempus superaddita, seorsum digerere et eumponere: eum in plurimis rebus, non eadem sit, in jure dicendo, juris communis et statutorum interpretatio et administratio. Id quod fecit Trebonianus in *Digesto* et *Codice*.

LXII.

Verum in hujusmodi legum regeneratione, atque structura nova, veterum legum atque librorum legis verba prorsus et textum retineto: licet per eentones et portiones exiguas eas excerpere necesse fnerit: ea deinde ordine contexito. Etsi enim fortasse eommodius, atque etiam, si ad rectam rationem respieias, melius hoc transigi posset per textum novum, quam per hujusmodi consareinationem; tamen in legibus non tam stylus et descriptio, quam auctoritas, et hujus patronus antiqoitas spectanda est. Alias videri possit hujusmodi opus scholasticum potius quiddam, et methodus, quam eorpus legum imperantium.

LXIII.

Consultum fuerit in novo digesto legum, vetera volumina non prorsus deleri et in oblivionem cedere, sed in bibliothesis saltem manere; licet usus eorum vulgaris et promiscuus prohibeatur. Etenim in causis gravioribus, non abs re fuerit, legum præteritarum mntationes, et series consulere et inspicere; ac certe solenne est, antiquitatem præsentibus aspergere. Novum autem hujusmodi corpus legum ab iis, qui in politiis singulis habent potestatem legislatoriam, prorsus eonfirmandum est; ne forte prætextu veteres leges digerendi, leges novæ imponantur occulto.

LXIV.

Optandum esset, ut hujusmodi legum instauratio illis temporibus suscipiatur, quæ antiquioribus, quorum acta et opera retractant, literis et rerum eognitione præstiterint. Quod secus in opere Justiniani evenit. Infelix res namqne est, eum ex judicio et deleetu ætatis minns prudentis et eruditæ antiquorum opera mutilentur et reeomponantur. Veruntamen sæpe necessarium est, qnod non optimum.

Atque de legum obscuritate, quæ a nimia et confusa earum accumulatione fit, hæc dicta sint. Jam de descriptione earum ambigua et obscura, dicendum.

DE DESCRIPTIONE LEGUM PERPLEXA ET OBSCURA.

APHORISMUS LXV.

Descriptio legum obscura oritur, aut ex loquacitate et verbositate earum; aut rursus ex brevitate nimia; aut ex prologo legis cum ipso corpore legis pugnante.

LXVI.

De obscuritate vero legum, quæ ex earum descriptione prava oritur, jam dicendum est. Loquacitas, quæ in perscribendo leges in usum venit, et prolixitas non placet. Neque enim, quod vult et eaptat, ullo modo assequitur, sed contrarium potius. Cum enim casus singulos particulares verbis appositis et propriis persequi et exprimere contendat, majorem inde sperans certitudinem; e contra quæstiones multipliees parit de verbis; ut difficilius procedat interpretatio seenndum sententiam legis (quæ sanior est et verior) propter strepitum verborum.

LXVII.

Neque propterea nimis eoneisa et affectata brevitas, majestatis gratia, et tanquam magis imperatoria, probanda est; præsertim his seculis, ne forte sit lex instar regulæ Lesbiæ. Mediocritas ergo assectanda est; et verborum exquirenda generalitas bene termiuata; quæ licet easus eomprehensos non sedulo persequatur, attamen non eomprehensos satis perspieue exeludat.

LXVIII.

In legibus tamen atque edictis ordinariis et politicis, in quibus, ut plurimum, nemo jurisconsultum adhibet, sed suo sensui eonfidit, omnia fusius explicari debent, et ad captum vulgi, tanquam digito monstrari.

LXIX.

Neque nobis prologi legum, qui inepti olim habiti sunt, et leges introducunt disputantes non jubentes, utique placerent, si priscos mores ferre possemus. Sed prologi isti legum plerunque (ut nunc sunt tempora) necessario adhibentur, non tam ad explicationem legis, quam instar suasioois, ad perferendam legem in eomitiis, et rursus ad satisfaciendum populo. Quantum fieri potest tamen prologi evitentur, et lex incipiat a jussione.

LXX.

Intentio et sententia legis, lieet ex præfationibus et præambulis (ut loquuntur) non male quandoque elieiatur; attamen latitudo aut extensio ejus ex illis minime peti debet. Sæpe enim præambulum arripit nonnulla ex maxime plausibilibus et speciosis ad exemplum, cum lex tamen multo plnra complectatur; aut contra, lex restringit et limitat eomplura, eujus limitationis rationem in præambulo inseri non fucrit opus. Quare dimensio et latitudo legis ex corpore legis petenda: nam præambulum sæpe aut ultra aut citra cadit.

LXXI.

Est vero genus perscribendi leges valde vitiosum. Cum scilicet casus, ad quem lex eollimat, fuse exprimitur in præambulo: deinde ex vi verbi (talis) aut hujusmodi relativi, corpus legis retro vertitur in præambulum, unde præambulum inseritur et incorporatur ipsi legi: quod et obscurum est, et minus tu-

tum; quia non eadem adhiberi consuevit diligentia in ponderandis et examinandis verbis præambuli, quæ adhibetur in corpore ipsius legis.

Hanc partem de incertitudine legum, quæ ex mala descriptione ipsarum ortum habet, fusius tractabimus, quando de interpretatione legum postea agemus. Atque de descriptione legum obscura hæc dicta sint: jam de modis enucleandi juris dicendum.

DE MODIS ENUCLEANDI JURIS, ET TOLLENDI AMBIGUA.

APHORISMUS LXXII.

Modi enucleandi juris, et tollendi dubia, quinque sunt. Hoc enim fit, aut per perscriptiones judiciorum; aut per scriptores authenticos; aut per libros auxiliares; aut per prælectiones; aut per responsa, sive consulta prudentum. Hæc omnia, si bene instituantur, præsto erunt magna legum obscuritati subsidia.

DE PERSCRIPTIONE JUDICIORUM.

APHORISMUS LXXIII.

Ante omnia, judicia reddita in curiis supremis et principalibus, atque causis gravioribus, præsertim dubiis, quæque aliquid habent difficultatis aut novitatis, diligenter et cum fide excipiunto. Judicia enim anchoræ legum sunt, ut leges reipublicæ.

LXXIV.

Modus hujusmodi judicia excipiendi, et in scripta referendi, talis esto. Casus præcise, judicia ipsa exacte perscribito: rationes judiciorum, quas adduxerunt judices, adjicito: casuum, ad exemplum adductorum, auctoritatem cum casibus principalibus ne commisceto: de advocatorum perorationibus, nisi quidpiam in iis fuerit admodum eximium, sileto.

LXXV.

Personæ, quæ hujusmodi judicia excipiant, ex advocatis maxime doctis sunto, et honorarium liberale ex publico excipiunto. Judices ipsi ab hujusmodi perscriptionibus abstinento: ne forte opinionibus propriis addicti, et auctoritate propria freti, limites referendarii transcendant.

LXXVI.

Judicia illa, in ordine et serie temporis, digerito; non per methodum et titulos. Sunt enim scripta ejusmodi, tanquam historiæ, aut narrationes legum. Neque solum acta ipsa, sed et tempora ipsorum, judici prudenti lucem præbent.

DE SCRIPTORIBUS AUTHENTICIS.

APHORISMUS LXXVII.

Ex legibus ipsis, quæ jus commune constituunt; deinde, ex constitutionibus sive statutis; tertio loco, ex judiciis perscriptis, corpus juris tantummodo constituitor. Præter illa, alia authentica, aut nulla sunto, aut parce recipiuntor.

LXXVIII.

Nihil tam interest certitudinis legum (de qua nunc tractamus) quam ut scripta authentica infra fines moderatos coërceantur, et faccssat multitudo enormis auctorum et doctorum in jure; unde laceratur sententia legum, judex fit attonitus, processus immortales, atque advocatus ipse, cum tot libros perlegere et vincere non possit, compendia sectatur. Glossa fortasse aliqua bona; et ex scriptoribus classicis pauci, vel potius scriptorum paucorum pauculæ portiones, recipi possint pro authenticis. Reliquorum nihilominus maneat usus nonnullus in bibliothecis, ut eorum tractatus inspiciant judices, aut advocati, cum opus fuerit: sed in causis agendis, in foro citare eos non permittitor, nec in auctoritatem transeunto.

DE LIBRIS AUXILIARIBUS.

APHORISMUS LXXIX.

At scientiam juris, et practicam, auxiliaribus libris ne nudanto, sed potius instruunto. Ii sex in genere sunto. Institutiones. De verborum significatione. De regulis juris. Antiquitates legum. Summæ. Agendi formulæ.

LXXX.

Præparandi sunt juvenes et novitii, ad scientiam et ardua juris altius et commodius haurienda et imbibenda, per institutiones. Institutiones illas ordine claro et perspicuo componito. In illis ipsis universum jus privatum percurrito: non alia omittendo, in aliis plus satis immorando, sed ex singulis quædam breviter delibando, ut ad corpus legum perlegendum accessuro, nil se ostendat prorsus novum, sed levi aliqua notione præceptum. Jus publicum in institutionibus ne attingito; verum illud ex fontibus ipsis hauriatur.

LXXXI.

Commentarium de vocabulis juris conficito. In explicatione ipsorum, et sensu reddendo, ne curiose nimis aut laboriose versator: neque enim hoc agitur, ut definitiones verborum quærantur exacte, sed explicationes tantum, quæ legendis juris libris viam aperiant faciliorem. Tractatum autem istum per literas alphabeti ne digerito. Id judici alicui relinquito: sed collocentur simul verba, quæ circa eandem rem versantur; ut alterum alteri sit juvamento ad intelligendum.

LXXXII.

Ad certitudinem legum facit (si quid aliud) tractatus bonus et diligens de diversis regulis juris. Is dignus est, qui maximis ingeniis, et prudentissimis jurisconsultis committatur. Neque enim placent, quæ in hoc genere extant. Colligendæ autem sunt regulæ, non tantum notæ et vulgatæ, sed et aliæ magis subtiles et reconditæ, quæ ex legum et rerum judicatarum harmonia extrahi possint; quales in rubricis optimis quandoque inveniuntur; suntque dictamina generalia rationis, quæ per materias legis diversas percurrunt, et sunt instar saburræ juris.

LXXXIII.

At singula juris scita, aut placita, non intelligantur pro regulis, ut fieri solet satis imperite. Hoc enim si reciperetur, quot leges, tot regulæ: lex enim

nil aliud, quam regula imperans. Verum eas pro regulis habeto, quæ in forma ipsa justitiæ hærent; unde, ut plurimum, per jura civilia diversarum rerumpublicarum eædem regulæ fere reperiuntur; nisi forte propter relationem ad formas politiarum varient.

LXXXIV.

Post regulam, brevi et solido verborum complexu enunciatam, adjiciantur exempla, et decisiones casuum maxime luculentæ ad explicationem; distinctiones et exceptiones ad limitationem; cognata ad ampliationem ejusdem regulæ.

LXXXV.

Recte jubetur, ut non ex regulis jus sumatur; sed ex jure quod est, regula fiat: neque enim ex verbis regulæ petenda est probatio, ac si esset textus legis: regula enim legem (ut acus nautica polos) indicat, non statuit.

LXXXVI.

Præter corpus ipsum juris, juvabit etiam antiquitates legum invisere; quibus licet evanuerit auctoritas, manet tamen reverentia. Pro antiquitatibus autem legum habeantur scripta circa leges et judicia; sive illa fuerint edita, sive non, quæ ipsum corpus legum tempora præcesserunt. Earum siquidem jactura facienda non est. Itaque ex iis utilissima quæque excerpito (multa enim invenientur inania et frivola) eaque in unum volumen redigito: ne antiquæ fabulæ, ut loquitur Trebonianus, cum legibus ipsis misceantur.

LXXXVII.

Practicæ vero plurimum interest, ut jus universum digeratur ordine in locos et titulos; ad quos subito (prout dabitur occasio) recurrere quis possit, veluti in promptuarium paratum ad præsentes usus. Hujusmodi libri summarum, et ordinant sparsa, et abbreviant fusa et prolixa in lege. Cavendum autem est, ne summæ istæ reddant homines promptos ad practicam, cessatores in scientia ipsa. Earum enim officium est tale, ut ex iis recolatur jus, non perdiscatur. Summæ autem omnino magna diligentia, fide, et judicio sunt conficiendæ, ne furtum faciant legibus.

LXXXVIII.

Formulas agendi diversas in unoquoque genere colligito. Nam et practicæ hoc interest; et certe pandunt illæ oracula et occulta legum. Sunt enim non pauca, quæ latent in legibus: at in formulis agendi, melius et fusius perspiciuntur; instar pugni et palmæ.

DE RESPONSIS ET CONSULTIS.

APHORISMUS LXXXIX.

Dubitationes particulares, quæ de tempore in tempus emergunt, dirimendi et solvendi aliqua ratio iniri debet. Durum enim est, ut ii, qui ab errore cavere cupiant, ducem viæ non inveniant, verum ut actus ipsi periclitentur, neque sit aliquis ante rem peractam juris prænoscendi modus.

XC.

Responsa prudentum, quæ petentibus dantur de jure, sive ab advocatis sive a doctoribus, tanta valere auctoritate, ut ab eorum sententia judici recedere non sit licitum, non placet. Jura a juratis judicibus sumunto.

XCI.

Tentari judicia per causas et personas fictas, ut eo modo experiantur homines qualis futura sit legis norma, non placet. Dedecorat enim majestatem legum et pro prævaricatione quapiam censenda est. Judicia autem aliquid habere ex scena, deforme est.

XCII.

Judicum igitur solummodo tam judicia, quam responsa et consulta sunto. Illa de litibus pendentibus; hæc de arduis juris quæstionibus in thesi. Ea consulta, sive in privatis rebus, sive in publicis, a judicibus ipsis ne poscito (id enim si fiat, judex transeat in advocatum) sed a principe, aut statu. Ab illis ad judices demandentur. Judices vero, tali auctoritate freti, disceptationes advocatorum, vel ab his, quorum interest, adhibitorum, vel a judicibus ipsis, si opus sit, assignatorum, et argumenta ex utraque parte, audiunto; et re deliberata jus expediunto et declaranto. Consulta hujusmodi inter judicia referunto et edunto, et paris auctoritatis sunto.

DE PRÆLECTIONIBUS.

APHORISMUS XCIII.

Prælectiones de jure, atque exercitationes eorum, qui juris studiis incumbunt, et operam dant, ita instituuntor et ordinantor, ut omnia tendant ad quæstiones et controversias de jure sedandas potius, quam excitandas. Ludus enim (ut nunc fit) fere apud omnes instituitur et aperitur, ad altercationes, et quæstiones de jure multiplicandas, tanquam ostentandi ingenii causa. Atque hoc vetus est malum. Etenim etiam apud antiquos gloriæ fuit, tanquam per sectas et factiones, quæstiones complures de jure magis fovere, quam extinguere. Id ne fiat, provideto.

DE VACILLATIONE JUDICIORUM.

APHORISMUS XCIV.

Vacillant judicia, vel propter immaturam et præfestinam sententiam; vel propter æmulationem curiarum; vel propter malam et imperitam perscriptionem judiciorum; vel propter viam præbitam ad rescissionem eorum nimis facilem et expeditam. Itaque providendum est, ut judicia emanent, matura deliberatione prius habita; atque ut curiæ sc invicem revereantur; atque ut judicia perscribantur fideliter et prudenter; utque via ad rescindenda judicia, sit arcta, confragosa, et tanquam muricibus strata.

XCV.

Si judicium redditum fuerit de casu aliquo in aliqua curia principali, et similis casus intervenerit in alia curia, ne procedito ad judicium, antequam fiat

consultatio in collegio aliquo judicum majore. Judicia enim reddita si forte rescindi necesse sit, saltem scpeliuntor cum honore.

XCVI.

Ut curiæ de jurisdictione digladientur et conflictentur, humanum quiddam est; eoque magis, quod per ineptam quandam sententiam (quod boni et strenui sit judicis, ampliare jurisdictionem curiæ) alatur plane ista intemperies, et calcar addatur, ubi fræno opus est. Ut vero, ex hac animorum contentione, curiæ, judicia utrobique reddita (quæ nil ad jurisdictionem pertinent) libenter rescindant, intolerabile malum, et a regibus, aut senatu, aut politia, plane vindicandum. Pessimi enim exempli res est, ut curiæ, quæ pacem subditis præstant, inter se duella exerceant.

XCVII.

Non facilis esto aut proclivis ad judicia rescindenda aditus per appellationes, aut impetitiones de errore, aut revisus, et similia. Receptum apud nonnullos est, ut lis trahatur ad forum superius, tanquam res integra; judicio inde dato seposito, et plane suspenso. Apud alios vero, ut judicium ipsum maneat in suo vigore, sed executio ejus tantum cesset. Neutrum placet, nisi curiæ, in quibus judicium redditum sit, fuerint humiles, et inferioris ordinis: sed potius, ut et judicium stet, et procedat ejus executio; modo cautio detur a defendente de damnis et expensis, si judicium fuerit rescissum.

Atque hic titulus de certitudine legum, ad exemplum digesti reliqui (quod meditamur) sufficiet. Jam vero doctrinam civilem (quatenus eam nobis tractare visum est) concluximus; atque una cum ea philosophiam humanam: sicut etiam cum philosophia humana philosophiam in genere. Tandem igitur paululum respirantes, atque ad ea, quæ præterveeti sumus, oculos retroflectentes, hunc tractatum nostrum non absimilem esse censemus sonis illis et præludiis, quæ præstentant musici, dum fides ad modulationem concinnant: quæ ipsa quidem auribus ingratum quiddam et asperum exhibent; at in causa sunt, ut quæ sequuntur omnia sint suaviora: sic nimirum nos in animum induximus, ut in cithara musarum concinanda, et ad harmoniam veram redigenda, operam navaremus, quo ab aliis postea pulsentur chordæ, meliore digito aut plectro. Sane, cum nobis ante oculos proponamus temporum horum statum, in quibus litcræ jam tertio ad mortales videntur rediisse: et una diligenter intueamur quam variis jam nos inviserint instructæ præsidiis et auxiliis: qualia sunt, ingeniorum nostri temporis complurium acumen et sublimitas; eximia illa monumenta scriptorum veterum, quæ veluti tot faces nobis prælucent; ars typographica, libros cujuscunque fortunæ hominibus larga manu suppeditans; oceani sinus laxati, et orbis ex omni parte peragratus, unde experimenta plurima priscis ignota comparuerunt, et ingens accessit naturali historiæ cumulus; otium, quo ingenia optima in regnis et provinciis Europæ ubique abundant, cum negotiis minus his in locis implicentur homines, quam aut Græci, propter populares status, aut propter ditionum amplitudinem Romani solebant; pax, qua fruitur hoc tempore Britannia, Hispania, Italia, etiam nunc Gallia, et aliæ regiones non paucæ; consumptio et exinanitio omnium, quæ videntur excogitari aut dici posse circa controversias religionis, quæ tot ingenia jam diu diverterunt a cæterarum artium studiis; summa et excellens majestatis tuæ eruditio, cui (tanquam Phœnici volucres) aggregant se undique ingenia; proprietas denique illa inseparabilis, quæ tempus ipsum sequitur, ut veritatem indies parturiat; hæc (inquam) cum cogitamus, non possumus non in eam spem animum erigere, ut existimemus, tertiam hanc literarum periodum duas illas priores, apud Græcos et Romanos, longo intervallo superaturam; modo saltem homines, et vires suas atque defectus etiam virium suarum probe et prudenter nosse velint; atque alii ab aliis inventionis lampada, non contradictionis torres accipiant, atque inquisitionem veritatis pro incepto nobili, non pro delectamento aut ornamento putent: atque opes ac magnificentiam impendant in res solidas et eximias, non in pervulgatas et obvias. Ad labores meos quod attinet, si cui libeat in eorum reprehensione, aut sibi, aut aliis placere, veterem certe et ultimæ patientiæ petitionem exhibebunt illi: " Verbera, sed audi." Reprehendant homines, quantum libuerit, modo attendant et perpendant, quæ dicuntur. Appellatio sane legitima fuerit (licet res fortasse minus ea indigebit) si a primis cogitationibus hominum ad secundas provocctur, et ab ævo præsenti ad posteros. Veniamus nunc ad eam scientiam, qua caruerunt duæ illæ priscæ temporum periodi (neque enim tanta illis felicitas concessa est) sacram dico et divinitus inspiratam theologiam, cunctorum laborum ac peregrinationum humanarum sabbatum ac portum nobilissimum.

FRANCISCI

BARONIS DE VERULAMIO, VICE-COMITIS SANCTI ALBANI,

DE

DIGNITATE ET AUGMENTIS SCIENTIARUM.

LIBER NONUS.

AD REGEM SUUM.

CAPUT PRIMUM.

Partitiones theologiæ inspiratæ omittuntur: tantum aditus fit ad desiderata tria: doctrinam de legitimo usu rationis humanæ in divinis; doctrinam de gradibus unitatis in civitate dei; et emanationes scripturarum.

Jam vero (rex optime) cum carina parva, qualis nostra esse potuit, universum ambitum, tam veteris quam novi orbis, scientiarum circumnavigaverit (quam secundis ventis et cursu, posterorum sit judicium) quid superest, nisi ut vota, tandem perfuncti, persolvamus? At restat adhuc theologia sacra, sive inspirata. Veruntamen si cam tractare pergamus, exeundum nobis foret e navicula rationis humanæ, et transeundum in Ecclesiæ navem, quæ sola acu nautica divina pollet ad cursum recte dirigendum. Neque enim sufficient amplius stellæ philosophiæ, quæ hactenus præcipue nobis affulserunt: itaque par foret, silentium quoque in hac re colere. Quamobrem partitiones legitimas circa eam omittemus; pauca tamen, pro tenuitate nostra, etiam in hanc conferemus, loco votorum. Id eo magis facimus, quia in corpore theologiæ nullam prorsus regionem, aut tractum plane desertum aut incultum, invenimus: tanta fuit hominum diligentia in seminandis, aut tritico, aut zizaniis.

Tres igitur proponemus theologiæ appendices, quæ non de materia per theologiam informata, aut informanda, sed tantummodo de modo informationis tractent. Neque tamen circa eos tractatus (ut in reliquis consuevimus) vel exempla subjungemus, vel præcepta dabimus. Id theologis relinquemus: sunt enim illa (ut diximus) instar votorum tantum.

1. Prærogativa Dei totum hominem complectitur; nec minus ad rationem, quam ad voluntatem humanam, extenditur: ut homo scilicet in universum se abneget, et accedat Deo. Quare, sicut legi divinæ obedire tenemur, licet reluctetur voluntas; ita et verbi Dei fidem habere, licet reluctetur ratio. Etenim, si ea duntaxat credamus, quæ sunt rationi nostræ consentanea, rebus assentimur, non auctori; quod etiam suspectæ fidei testibus præstare solemus. At fides illa, quæ Abrahamo "imputabatur ad justitiam," de hujusmodi re extitit, quam irrisui habebat Sarah: quæ in hac parte imago quædam erat rationis naturalis. Quanto igitur mysterium aliquod divinum fuerit magis absonum et incredibile; tanto plus in credendo exhibetur honoris Deo, et fit victoria fidei nobilior. Etiam et peccatores, quo magis conscientia sua gravantur, et nihilominus fidem de salute sua in Dei misericordia collocant, eo Deum majore afficiunt honore: omnis autem desperatio Deo pro contumelia est. Quinetiam, si attente rem perpendamus, dignius quiddam est credere, quam scire, qualiter nunc scimus. In scientia enim mens humana patitur a sensu, qui a rebus materiatis resilit; in fide autem anima patitur ab anima, quæ est agens dignius. Aliter se res habet in statu gloriæ: tunc siquidem cessabit fides, atque "cognoscemus, sicut et cogniti sumus."

Concludamus igitur theologiam sacram ex verbo et oraculis Dei, non ex lumine naturæ aut rationis dictamine, hauriri debere. Scriptum est enim, "Cœli enarrant gloriam Dei:" at nusquam scriptum invenitur, "Cœli enarrant voluntatem Dei." De illa pronunciatur, "Ad legem et testimonia, si non fecerint secundum verbum istud," etc. Neque hoc tenet tantum in grandibus illis mysteriis, de Deitate, creatione, redemptione, verum pertinet etiam ad interpretationem perfectiorem legis moralis; "Diligite inimicos vestros, benefacite his, qui oderunt vos," etc. "Ut sitis filii Patris vestri, qui in cœlis est, qui pluit super justos et injustos." Quæ certe verba plausum illum merentur: "Nec vox hominem sonat." Siquidem vox est, quæ lumen naturæ superat. Quinetiam videmus poëtas ethnicos, præsertim cum pathetice loquantur, expostulare non raro cum legibus et doctrinis moralibus (quæ tamen legibus divinis multo sunt indulgentiores et solutiores) ac si naturæ libertati eum maligniate quadam repugnent:

—"Et quod natura remittit,
Invida jura negant."—

Ita Dendamis Indus ad Alexandri nuntios: "Se in-

audisse quidem aliquid de nomine Pythagoræ, et aliorum sapientum e Græcia; et credere illos fuisse viros magnos; vitio tamen illo laborasse, quod scilicet nimia in reverentia et veneratione habuissent rem quampiam fantasticam, quam legem et morem vocitabant." Quare, nec illud dubitandum, magnam partem legis moralis sublimiorem esse, quam quo lumen naturæ ascendere possit. Veruntamen quod dicitur, habere homines, etiam ex lumine et lege naturæ, notiones nonnullas virtutis, vitii, justitiæ, injuriæ, boni, mali; id verissimum est. Notandum tamen lumen naturæ duplici significatione accipi: Primo, quatenus oritur ex sensu, inductione, ratione, argumentis, secundum legis cœli ac terræ: secundo, quatenus animæ humanæ interno affulget instinctu, secundum legem conscientiæ; quæ scintilla quædam est, et tanquam reliquiæ pristinæ et primitivæ puritatis. In quo posteriore sensu præcipue particeps est anima lucis nonnullius, ad perfectionem intuendam et discernendam legis moralis; quæ tamen lux non prorsus clara sit, sed ejusmodi, ut potius vitia quadamtenus redarguat, quam de officiis plene informet. Quare religio, sive mysteria spectes sive mores, pendet ex revelatione divina.

Attamen usus rationis humanæ in spiritualibus multiplex sane existit, ac late admodum patet. Neque enim sine causa est, quod Apostolos religionem appellaverit "rationalem cultum Dei." Recordetur quis ceremonias et typos veteris legis: fuerunt illæ rationales et significativæ, longe discrepantes a ceremoniis idololatriæ et magiæ, quæ tanquam surdæ et mutæ erant, nihil docentes plerunque, imo ne innuentes quidem. Præcipue Christiana fides, ut in omnibus, sic in hoc ipso eminet, quod aureum servet mediocritatem circa usum rationis et disputationis (quæ rationis proles est) inter leges ethnicorum et Mahometi, quæ extrema sectantur. Religio siquidem ethnicorum fidei aut confessionis constantis nihil habebat; contra in religione Mahometi omnis disputatio interdicta est; ita ut altera erroris vagi et multiplicis; altera vafræ cujusdam et cautæ impostura, faciem præ se ferat; cum sancta fides Christiana rationis usum et disputationem (sed secundum debitos fines) et recipiat, et rejiciat.

Humanæ rationis usus, in rebus ad religionem spectantibus, duplex est: alter in explicatione mysterii; alter in illationibus, quæ inde deducuntur. Quod ad mysteriorum explicationem attinet, videmus non dedignari Deum ad infirmitatem captus nostri se demittere, mysteria sua ita explicando, ut a nobis optime ea possint percipi; atque revelationes suas in rationis nostræ syllepses et notiones veluti inoculando, atque inspirationes ad intellectum nostrum aperiendum sic accommodando, quemadmodum figura clavis aptatur figuræ seræ. Qua tamen in parte nobis ipsis deese minime debemus: cum enim Deus ipse opera rationis nostræ in illuminationibus suis utatur; etiam nos eandem in omnes partes versare debemus, quo magis capaces simus ad mysteria recipienda et imbibenda; modo animus ad amplitudinem mysteriorum pro modulo suo dilatetur, non mysteria ad angustias animi constringantur.

Quantum vero ad illationes; nosse debemus, relinqui nobis usum rationis et ratiocinationis (quoad mysteria) secundarium quendam et respectivum, non primitivum et absolutum. Postquam enim articuli et principia religionis jam in sedibus suis fuerint locata, ita ut a rationis examine penitus eximantur; tum demum conceditur ab illis illationes derivare ac deducere, secundum analogiam ipsorum. In rebus quidem naturalibus hoc non tenet. Nam et ipsa principia examini subjiciuntur; per inductionem, inquam, licet minime per syllogismum: atque eadem illa nullam habent cum ratione repugnantiam, ut ab eodem fonte, tum primæ propositiones, tum mediæ, deducantur. Aliter fit in religione; ubi et primæ propositiones authypostatæ sunt, atque per se subsistentes: et rursus, non reguntur ab illa ratione, quæ propositiones consequentes deducit. Neque tamen hoc fit in religione sola, sed etiam in aliis scientiis, tam gravioribus quam levioribus, ubi scilicet propositiones primariæ placita sint, non posita: siquidem et in illis rationis usus absolutus esse non potest. Videmus enim in ludis, puta schaccorum, aut similibus, primas ludi normas et leges mere positivas esse et ad placitum; quas recipi, non in disputationem vocari, prorsus oporteat: ut vero vineas et perite lusum instituas, id artificiosum est et rationale: eodem modo fit et in legibus humanis; in quibus haud paucæ sunt maximæ (ut loquuntur) hoc est, placita mera juris, quæ auctoritate magis quam ratione nituntur; neque in disceptationem veniunt: quid vero sit justissimum, non absolute, sed relative (hoc est, ex analogia illarum maximarum) id demum rationale est, et latum disputationi campum præbet. Talis igitur est secundaria illa ratio, quæ in theologia sacra locum habet, quæ scilicet fundata est super placita Dei.

Sicut vero rationis humanæ in divinis usus est duplex, ita et in eodem usu duplex excessus. Alter, cum in modum mysterii curiosius, quam par est, inquiritur. Alter, cum illationibus æqua tribuitur auctoritas, ac principiis ipsis. Nam et Nicodemi discipulus videri possit, qui pertinacius quærat: "Quomodu possit homo nasci, cum sit senex?" Et discipulus Pauli neutiquam censeri possit, qui non quandoque in doctrinis suis inserat, "Ego, non dominus;" aut illud, "Secundum consilium meum:" siquidem illationibus plerisque stylus iste conveniet. Itaque nobis res salubris videtur et imprimis utilis, si tractatus instituatur sobrius et diligens, qui de usu rationis humanæ in theologicis utiliter præcipiat, tanquam divina quædam dialectica: utpote quæ futura sit instar opiatæ cujusdam medicinæ, quæ non modo speculationum, quibus schola interdum laborat, inania consopiat; verum etiam controversiarum furores, quæ in Ecclesia tumultus cient, nonnihil mitiget. Ejusmodi tractatum inter desiderata ponimus; et Sophronem, sive de legitimo usu rationis humanæ in divinis, nominamus.

2. Interest admodum pacis Ecclesiæ, ut fœdus Christianorum, a Servatore præscriptum in duobus illis capitibus, quæ nonnihil videntur discrepantia, bene et clare explicetur: quorum alterum sic definit; "Qui non est nobiscum, est contra nos:" alterum autem sic; "Qui contra nos non est, nobiscum est." Ex his liquido patet, esse nonnullos articulos, in quibus qui dissentit, extra fœdus statuendus

sit: alios vero, in quibus dissentire liceat, salvo fœdere. Vincula enim communionis Christianæ ponuntur, "Una fides, unum baptisma," etc. Non unus ritus, una opinio. Videmus quoque tunicam Salvatoris inconsutilem extitisse; vestem autem Ecclesiæ versicolorem. Paleæ in arista separandæ sunt a frumento; at zizania in agro non protinus evellenda. Moses, cum certantem reperisset Ægyptium cum Israelita, non dixit, "Cur certatis?" sed gladio evaginato Egyptium interfecit: at cum Israelitas duos certantes vidisset, quamvis fieri non potuit, ut utrique causa justa contingeret, ita tamen eos alloquitur; "Fratres estis, cur certatis?" His itaque perpensis, magni videatur res et momenti et usus esse, ut definiatur, qualia sint illa, et quantæ latitudinis, quæ ab Ecclesiæ corpore homines penitus divellant, et a communione fidelium eliminent. Quod si quis putet, hoc jam pridem factum esse, videat ille etiam atque etiam, quam sincere et moderate. Illud interim verisimile est, eum, qui pacis mentionem fecerit, reportaturum responsum illud Jehu ad nuntium "(Numquid pax est, Jehu?) Quid tibi et paci? Transi et sequere me." Cum non pax, sed partes, plerisque cordi sint. Nobis nihilominus visum est tractatum de gradibus unitatis in civitate Dei, ut salubrem et utilem, inter desiderata reponere.

3. Cum Scripturarum sacrarum circa theologiam informandam tantæ sint partes, de earum interpretatione imprimis videndum. Neque nunc de auctoritate eas interpretandi loquimur, quæ in consensu Ecclesiæ firmatur, sed de modo interpretandi. Is duplex est: methodicus, et solutus. Etenim latices isti divini, qui aquis illis ex puteis Jacobi in infinitum præstant, similibus fere hauriuntur et exhibentur modis, quibus aquæ naturales ex puteis solent: hæ siquidem, aut sub primum haustum in cisternas recipiuntur, unde per tubos complures ad usum commode diduci possunt; aut statim in vasa infunduntur, subinde prout opus est utendæ. Atque modus ille prior methodicus theologiam nobis tandem peperit scholasticam; per quam doctrina theologica in artem, tanquam in cisternam, collecta est; atque inde axiomatum et positionum rivuli in omnes partes sunt distributi. At in interpretandi modo soluto duo interveniunt excessus. Alter, ejusmodi præsupponit in Scripturis perfectionem, ut etiam omnis philosophia ex earum fontibus peti debeat; ac si philosophia alia quævis, res profana esset et ethnica. Hæc intemperies in schola Paracelsi præcipue, nec non apud alios invaluit: initia autem ejus a Rabbinis et Cabalistis defluxerunt. Verum istiusmodi homines non id assequuntur quod volunt: neque enim honorem, ut putant, Scripturis deferunt; sed easdem potius deprimunt et polluunt. Cœlum enim materiatum, et terram, qui in verbo Dei quæsiverit (de quo dictum est; "Cœlum et terra pertransibunt, verbum autem meum non pertransibit") is sane transitoria inter æterna temere persequitur. Quemadmodum enim theologiam in philosophia quærere perinde est, ac si vivos quæras inter mortuos: ita e contra philosophiam in theologia quærere non aliud est, quam mortuos quærere inter vivos. Alter autem interpretandi modus (quem pro excessu statuimus) videtur primo intuiti sobrius et castus; sed tamen et Scripturas ipsas dedecorat et plurimo Ecclesiam affieit detrimento. Is est (ut verbo dicamus) quando Scripturæ divinitus inspiratæ eodem, quo scripta humana, explicantur modo. Meminisse autem oportet, Deo Scripturarum auctori duo illa patere, quæ humana ingenia fugiunt: secreta nimirum cordis, et successiones temporis. Quamobrem, cum Scripturarum dictamina talia sint, ut ad eor scribantur, et omnium seculorum vicissitudines complectantur; cum æterna et certa præscientia omnium hæresium, contradictionum, et status Ecclesiæ varii et mutabilis, tum in communi, tum in electis singulis; interpretandæ non sunt solummodo secundum latitudinem et obvium sensum loci; aut respiciendo ad occasionem, ex qua verba erant prolata; aut præcise ex contextu verborum præcedentium et sequentium; aut contemplando scopum dicti principalem; sed sic, ut intelligamus complecti eas, non solum totaliter aut collective, sed distributive, etiam in clausulis et vocabulis singulis, innumeros doctrinæ rivulos et venas, ad Ecclesiæ singulas partes, et animas fidelium, irrigandas. Egregie enim observatum est, quod responsa Salvatoris nostri, ad quæstiones non paucas ex iis, quæ proponebantur, non videntur ad rem, sed quasi impertinentia. Cujus rei causa duplex est: altera, quod cum cogitationes eorum, qui interrogabant, non ex verbis, ut nos homines solemus, sed immediate et ex sese cognovisset, ad cogitationes eorum, non ad verba respondit: altera, quod non ad eos solum locutus est, qui tunc aderant, sed ad nos etiam, qui vivimus, et ad omnis ævi ac loci homines, quibus evangelium fuerit prædicandum: quod etiam in aliis Scripturæ locis obtinet.

His itaque prælibatis, veniamus ad tractatum eum, quem desiderari statuimis. Invenientur profecto inter scripta theologica, libri controversiarum nimio plures; theologiæ ejus, quam diximus positivam, massa ingens: loci communes; tractatus speciales; casus conscientiæ; conciones et homiliæ; denique prolixi plurimi in libros Scripturarum commentarii. Quod desideramus autem est hujusmodi: collectio scilicet succincta, sana, et cum judicio, annotationum et observationum super textus Scripturæ particulares; neutiquam in locos communes excurrendo, aut controversias persequendo, aut in artis methodum eas redigendo, sed quæ plane sparsæ sint et nativæ. Res certe in concionibus doctioribus se quandoque ostendens, quæ ut plurimum non perennant; sed quæ in libros adhuc non coaluit, qui ad posteros transeant. Certe, quemadmodum vina, quæ sub primam calcationem molliter defluunt, sunt soaviora, quam quæ a torculari exprimuntur; quoniam hæc ex acino et cute uvæ aliquid sapiant: similiter salubres admodum ac suaves sunt doctrinæ, quæ ex Scripturis leniter expressis emanant, nec ad controversias aut locos communes trahuntur. Hujusmodi tractatum emanationes Scripturarum nominabimus.

JAM itaque mihi videor confecisse globum exiguum orbis intellectualis, quam potui fidelissime; una cum designatione et descriptione earum partium, quas industria et laboribus hominum, aut non con-

stanter occupatas, aut non satis excultas, invenio. Quo in opere, siculi a sententia veterum recesserim, intelligatur hoc factum esse animo proficiendi in melius, non innovandi, aut migrandi in aliud. Neque enim mihimetipsi, aut argumento, quod in manibus habeo, constare potui, nisi plane decretum mihi fuisset aliorum inventis, quantum in me fuerit, add re, cum tamen non minus optaverim, etiam inventa mea ab aliis in posterum superari. Quam autem in hac re æquus fuerim, vel ex hoc apparet; quod opiniones meas proposuerim ubique nudas et inermes, neque alienæ libertati, per confutationes pugnaces, præjudicare contenderim. Nam in iis, quæ recte a me posita sunt, subest spes id futurum, ut si in prima lectione emergat scrupulus aut objectio, at in lectione iterata responsum se ultro sit exhibiturum: in iis vero, in quibus mihi errare contigit, certus sum nullam a me illatam esse vim veritati, per argumenta contentiosa; quorum ea fere est natura, ut erroribus auctoritatem concilient, recte inventis derogent. Siquidem ex dubitatione error honorem acquirit; veritas patitur repulsam. Interim in mentem mihi venit responsum illud Themistoclis, qui, cum ex oppido parvo legatus quidam magna nonnulla perorasset, hominem perstrinxit; "Amice, verba tua civitatem desiderant." Certe objici mihi rectissime posse existimo, quod verba mea seculum desiderent: seculum forte integrum ad probandum; complura autem secula ad perficiendum. Attamen, quoniam etiam res quæque maxime initiis suis debentur, mihi satis fuerit, sevisse posteris et Deo immortali: cujus Numen supplex precor, per Filium suum et Servatorem nostrum, ut has, et hisce similes, intellectus humani victimas, religione, tanquam sale, respersas, et gloriæ suæ immolatas, propitius accipere dignetur.

NOVUS ORBIS SCIENTIARUM, SIVE DESIDERATA.

LIB. II.

ERRORES naturæ, sive historia præter-generationum.
Vincula naturæ, sive historia mechanica.
Historia inductiva, sive historia naturalis in ordine ad condendam philosophiam.
Oculus Polyphemi, sive historia literarum.
Historia ad prophetias.
Philosophia secundum parabolas antiquas.

LIB. III.

Philosophia prima, sive de axiomatibus scientiarum communibus.
Astronomia viva.
Astrologia sana.
Continuatio problematum naturalium.
Placita antiquorum philosophorum.
Pars metaphysicæ de formis rerum.
Magia naturalis, sive deductio formarum ad opera.
Inventarium opum humanarum.
Catalogus polychrestorum.

LIB. IV.

Triumphi hominis, sive de summitatibus naturæ humanæ.
Physiognomia corporis in motu.
Narrationes medicinales.
Anatomia comparata.
De curatione morborum habitorum pro insanabilibus.
De euthanasia exteriore.
De medicinis authenticis.
Imitatio thermarum naturalium.
Filum medicinale.
De prolongando curriculo vitæ.
De substantia animæ sensibilis.
De nixibus spiritus in motu voluntario.
De differentia perceptionis et sensus.
Radix perspectivæ, sive de forma lucis.

LIB. V.

Experientia literata, sive venatio Panis.
Organum novum.
Topicæ particulares.
Elenchi idolorum.
De analogia demonstrationum.

LIB. VI.

De notis rerum.
Grammatica philosophans.
Traditio lampadis, sive methodus ad filios.
De prudentia sermonis privati.
Colores boni et mali apparentis, tam simplicis, quam comparati.
Antitheta rerum.
Formulæ minores orationum.

LIB. VII.

Satira seria, sive de interioribus rerum.
Georgica animi, sive de cultura morum.

LIB. VIII.

Amanuensis vitæ, sive de occasionibus sparsis.
Faber fortunæ, sive de ambitu vitæ.
Consul paludatus, sive de proferendis imperii finibus.
Idea justitiæ universalis, sive de fontibus juris.

LIB. IX.

Sophron, sive de legitimo usu rationis humanæ in divinis.
Irenæus, sive de gradibus unitatis in civitate Dei.
Utres cœlestes, sive emanationes Scripturarum.

Sequitur secunda pars INSTAURATIONIS, quæ artem ipsam interpretandi naturam, et verioris adoperationis intellectus exhibet: neque eam ipsam tamen in corpore tractatus justi; sed tantum digestam per summas, in aphorismos.

OPERA PHILOSOPHICA.

FRANCISCI BARONIS DE VERULAMIO,

SUMMI ANGLIÆ CANCELLARII,

NOVUM ORGANUM SCIENTIARUM:

SIVE INSTAURATIONIS MAGNÆ PARS SECUNDA.

NOVUM ORGANUM, SIVE INDICIA DE INTERPRETATIONE NATURÆ.

PRÆFATIO.

Qui de natura, tanquam de re explorata, pronuntiare ausi sunt, sive hoc ex animi fiducia fecerint, sive ambitiose et more professorio; maximis illi philosophiam et scientias detrimentis affecere. Ut enim ad fidem faciendam validi, ita etiam ad inquisitionem extinguendam et abrumpendam efficaces fuerunt: neque virtute propria tantum profuerunt, quantum in hoc nocuerunt, quod aliorum virtutem corruperint et perdiderint. Qui autem contrariam huic viam ingressi sunt, atque nihil prorsus sciri posse asseruerunt, sive ex sophistarum veterum odio, sive ex animi fluctuatione, aut etiam ex quadam doctrinæ copia, in hanc opinionem delapsi sint, certe non contemnendas ejus rationes adduxerunt; veruntamen nec a veris initiis sententiam suam derivarunt, et, studio quodam atque affectatione provecti, prorsus modum excesserunt. At antiquiores ex Græcis (quorum scripta perierunt) inter pronunciandi jactantium et acatalepsiæ desperationem prudentius se sustinuerunt: atque de inquisitionis difficultate, et rerum obscuritate, sæpius querimonias et indignationes miscentes, et veluti frænum mordentes, tamen propositum urgere, atque naturæ se immiscere non destiterunt: consentaneum (ut videtur) existimantes, hoc ipsum (videlicet utrum aliquid sciri possit) non disputare sed experiri: et tamen illi ipsi, impetu tantum intellectus usi, regulam non adhibuerunt, sed omnia in acri meditatione et mentis volutatione et agitatione perpetua posuerunt.

Nostra autem ratio, ut opere ardua, ita dictu facilis est. Ea enim est, ut certitudinis gradus constituamus, sensum par reductionem quandam tueamur, sed mentis opus, quod sensum subsequitur, plerumque rejiciamus; novam autem et certam viam, ab ipsis sensuum perceptionibus, menti aperiamus et muniamus. Atque hoc proculdubio viderunt et illi, qui tantas dialecticæ partes tribuerunt. Ex quo liquet, illos intellectui admodum quæsivisse, mentis autem processum nativum et sponte moventem, suspectum habuisse. Sed serum plane rebus perditis hoc adhibetur remedium; postquam mens ex quotidiana vitæ consuetudine, et auditionibus, et doctrinis inquinatis occupata, et vanissimis idolis obsessa fuerit. Itaque ars illa dialecticæ, sero (ut diximus) cavens, neque rem ullo modo restituens, ad errores potius figendos, quam ad veritatem aperiendam valuit. Restat unica salus ac sanitas, ut opus mentis universum de integro resumatur; ac mens, jam ab ipso principio, nullo modo sibi permittatur, sed perpetuo regatur; ac res, veluti per machinas, confiantur. Sane si homines opera mechanica nudis manibus, absque instrumentorum vi et ope, aggressi essent, quemadmodum opera intellectualia nudis fere mentis viribus tractare non dubitarunt: parvæ undmodum fuissent res, quas movere et vincere potuissent, licet operas conjunctas, atque etiam conjunctas præstitissent. Atque si paulisper morari, atque in hoc ipsum exemplum, veluti in speculum, intueri velimus; exquiramus (si placet) si forte obeliscus aliquis, magnitudine insignis, ad triumphi vel hujusmodi magnificentiæ decus transferendus esset, atque id homines nudis manibus aggrederentur, annon hoc magnæ cujusdam esse dementiæ, spectator quispiam rei sobrius fateretur? Quod si numerum augerent operariorum, atque hoc modo se valere posse confiderent, annon tanto magis? Sin autem

deleetum quendam adhibere vellent, atque imbecilliores separare, et robustis tantnm et vigentibus uti, atque hinc saltem se voti eompotes fore sperarent, annon adhuc eos impensius delirare diceret? Quin etiam si, hoc ipso non contenti, artem tandem athleticam eonsulere statuerent, ae omnes deineeps manibus, et laeertis et nervis, ex arte bene unetis et medieatis adesse juberent, annon prorsus eos dare operam, ut eum ratione quadam et prudentia insauirent, elamaret? Atque homines tamen simili malesano impetu, et conspiratione inutili, feruntur in intelleetualibus; dum ab ingeniorum vel multitudine et eonsensu, vel exeellentia et acumine, magna sperant; aut etiam dialeetica (quæ quædam athletiea eenseri possit) mentis nervos roborant; sed interim, licet tanto studio et conatu (si quis vere judicaverit) intelleetum nudum applieare non desinunt. Manifestissimum autem est, in omni opere magno, quod manus hominis præstat, sine instrumentis et machinis, vires nec singulorum intendi, nec omnium eoire posse.

Itaque ex his quæ diximus præmissis, statuimus duas esse res, de qnibus homines plane monitos volumus, ne forte illæ eos fugiant aut prætereant. Quarum prima hujusmodi est; fieri fato quodam (ut existimamus) bono, ad extinguendas et depellendas contradictiones et tumores animorum, ut et veteribus honor et reverentia intaeta et imminuta maneant, et nos destinata perfieere, et tamen modestiæ nostræ fructum pereipere possimus. Nam nos, si profiteamur nos meliora afferre, quam antiqui, eandem quam illi viam ingressi; nulla verborum arte effieere possimus, quin indocatur quædam ingenii, vel excellentiæ, vel faeultatis eomparatio sive contentio; non ea quidem illieita aut nova; (quidni enim possimus, pro jure nostro, neque eo ipso alio, quam omnium, si quid apud eos non recte inventum aut positum sit, reprehendere ant notare?) sed tamen nteunque justa aut permissa; nihilominus impar fortasse fnisset ea ipsa eontentio, ob virium nostrarum modum. Verum eum per nos illud agatur, ut alia omnino via intellectui aperiatur, illis intentata et ineognita, eommutata jam ratio est; eessant studium et partes; nosque indieis tantummodo personam sustinemus; quod mediocris certe est auetoritatis, et fortunæ eujusdam potius, quam facultatis et excellentiæ. Atque hæc moniti species ad personas pertinet, altera ad res ipsas.

Nos siquidem de deturbanda ea, quæ nunc floret, philosophia, aut si quæ alia sit, aut erit, hac emeudatior aut auetior, minime laboramus. Neque enim offieimus, quin philosophia ista reeepta et aliæ id genus, disputationes alant, sermones ornent, ad professoria munera et vitæ civilis eompeudia adhibeantur et valeant. Quin etiam aperte signifieamus et declaramus, eam quam nos addueimus philosophiam, ad istas res admodum utilem non futuram. Non præsto est; neque in transitu eapitur; neque ex prænotionibus intellectui blanditur; neque ad vulgi eaptum, nisi per utilitatem et effecta, descendet.

Sint itaque (quod felix faustumque sit utrique parti) duæ doctrinarum emanationes, ac duæ dispensationes; duæ similiter eontemplantium sive philosophantium tribus ae veluti cognationes; atque illæ nentiquam inter se inimicæ aut alienæ, sed fœderatæ et mutuis auxiliis devinctæ: sit denique alia seientias colendi, alia inveniendi ratio. Atque quibus prima potior et acceptior est, ob festinationem, vel vitæ civilis rationes, vel quod illam alteram ob mentis infirmitatem capere et compleeti non possint (id quod longe plurimis aecidere necesse est) optamus, ut iis feliciter et ex voto sueeedat quod agunt; atque ut quod sequuntur teneant. Quod si cui mortalium eordi et curæ sit, non tantum inventis hærere, atque iis uti, sed ad ulteriora penetrare; atque non disputando adversarium, sed opere natoram vineere; denique uon belle et probabiliter opinari, sed certo et ostensive seire; tales, tanquam veri scientiarum filii, nobis (si videbitur) se adjungant; ut omissis natnræ atriis, quæ infiniti contriverunt, aditus aliqnando sd interiora patefiat. Atque ut melius intelligamur, utque illud ipsum, quod volumus, ex nominibus impositis magis familiariter occurrat; altera ratio, sive via, "Anticipatio mentis;" altera "Interpretatio naturæ," a nobis appellari eonsnevit.

Est etiam qnod peteudum videtur. Nos certe cogitationem suscepimus, et curam adhibuimus, ut quæ a nobis proponentur, non tantum vera essent, sed etiam ad animos hominum (licet miris modis occupatos et interclusos) non incommode aut aspere aecederent. Veruntamen æquum est, ut ab hominibus impetremus (in tanta præsertim doctrinarum et seientiarum restauratione,) ut qui de hisce nostris aliquid, sive ex sensu proprio, sive ex auctoritatum turba, sive ex demonstrationum formis (quæ nunc tanqnam leges quædam judieiales invaluerunt) statuere aut existimare velit; ne id in transitu, et velut aliud agendo, faeere se posse speret; sed ut rem pernoseat; nostram, quam describimus et munimus, viam ipse paulatim tentet; subtilitati rerum, quæ in experientia signata est, assnescat; pravos denique, atque alte hærentes mentis habitus, tempestiva et quasi legitima mora, corrigat; atque tum demnm (si placuerit) postquam in potestate sua esse ceperit, judieio suo utatur.

PARTIS SECUNDÆ SUMMA,

DIGESTA IN

APHORISMOS.

APHORISMI DE INTERPRETATIONE NATURÆ, ET REGNO HOMINIS.

APHORISMUS I.

Homo, naturæ minister et interpres, tantum facit et intelligit, quantum, de naturæ ordine, re vel mente observaverit; nec amplius scit, aut potest.

II.

Nec manus nuda, nec intellectus sibi permissus, multum valet; instrumentis et auxiliis res perficitur; quibus opus est non minus ad intellectum, quam ad manum. Atque ut instrumenta manus motum aut cient aut regunt; ita et instrumenta mentis, intellectui aut suggerunt aut cavent.

III.

Scientia et potentia humana in idem coincidunt, quia ignoratio causæ destituit effectum. Natura enim non nisi parendo vincitur: et quod in contemplatione instar causæ est; id in operatione instar regulæ est.

IV.

Ad opera nil aliud potest homo, quam ut corpora naturalia admoveat et amoveat: reliqua natura intus agit.

V.

Soleut se immiscere naturæ (quoad opera) mechanicus, mathematicus, medicus, alchemista, et magus: sed omnes (ut nunc sunt res) conatu levi, successu tenui.

VI.

Insanam quiddam esset, et in se contrarium, existimare ea, quæ adhuc nunquam facta sunt, fieri posse, nisi per modos adhuc nunquam tentatos.

VII.

Generationes motus et magus numerosæ admodum videntur in libris et opificiis. Sed omnis ista varietas sita est in subtilitate eximia et derivationibus paucarum rerum, quæ ignotuerunt; non in numero axiomatum.

VIII.

Etiam opera, quæ jam inventa sunt, casui debentur et experientiæ, magis quam scientiis: scientiæ enim, quas nunc habemus, nihil aliud sunt, quam quædam conclusiones rerum antea inventarum; non modi inveniendi, aut designationes novorum operum.

IX.

Causa vero et radix fere omnium malorum in scientiis ea una est; quod dum mentis humanæ vires falso miramur et extollimus, vera ejus auxilia non quæramus.

X.

Subtilitas naturæ subtilitatem sensus et intellectus multis partibus superat; ut pulchræ illæ meditationes, et speculationes humanæ, et causationes, res malesana sint, nisi quod non adsit qui advertat.

XI.

Sint scientiæ, quæ nunc habeantur, inutiles sunt ad inventionem operum; ita et logica, quæ nunc habetur, inutilis est ad inventionem scientiarum.

XII.

Logica, quæ in usu est, ad errores (qui in notionibus vulgaribus fundantur) stabiliendos et figendos valet, potius quam ad inquisitionem veritatis; ut magis damnosa sit, quam utilis.

XIII.

Syllogismus ad principia scientiarum non adhibetur, ad media axiomata frustra adhibetur, cum sit subtilitati naturæ longe impar: assensum itaque constringit, non res.

XIV.

Syllogismus ex propositionibus constat, propositiouis ex verbis, verba notionum tesseræ sunt. Itaque si notiones ipsæ (id quod basis rei est) confusæ sint, et temere a rebus abstractæ; nihil in iis, quæ superstruuntur, est firmitudinis: itaque spes est una in *inductione* vera.

XV.

In notionibus nil sani est, nec in logicis, nec in physicis; non *substantia*, non *qualitas, agere, pati*, ipsum *esse*, bonæ notiones sunt; multo minus *grave, leve, densum, tenue, humidum, siccum, generatio, corruptio, attrahere, fugare, elementum, materiæ, forma*, et id genus; sed omnes phantasticæ et male terminatæ.

XVI.

Notiones infimarum specierum, *hominis, canis, columbæ*, et prehensionum immediatarum sensus, *calidi, frigidi, albi, nigri*, non fallunt magnopere; quæ tamen ipsæ a fluxu materiæ et commissione rerum quandoque confunduntur; reliquæ omnes (quibus homines hactenus usi sunt) aberrationes sunt, nec debitis modis a rebus abstractæ et excitatæ.

XVII.

Nec minor est libido et aberratio in constituendis axiomatibus, quam in notionibus abstrahendis; idque in ipsis principiis, quæ ab inductione vulgari pendent. At multo major est in axiomatibus, et propositionibus inferioribus, quæ educit syllogismus.

XVIII.

Quæ adhuc inventa sunt in scientiis, ea hujusmodi sunt, ut notionibus vulgaribus fere subjaceant: at vero ad interiora et remotiora naturæ penetretur, necesse est ut tam notiones, quam axiomata, magis certa et meliora vim a rebus abstrahantur; atque omnino melior et certior intellectus adoperatio in usum veniat.

XIX.

Duæ viæ sunt, atque esse possunt, ad inquirendam et inveniendam veritatem. Altera a sensu et particularibus advolat ad axiomata maxime generalia, atque ex iis principiis eorumque immota veritate judicat et invenit axiomata media: atque hæc via in usu est. Altera a sensu et particularibus excitat axiomata, ascendendo continenter et gradatim, ut ultimo loco perveniatur ad maxime generalia; quæ via vera est, sed intentata.

XX.

Eandem ingreditur viam (priorem scilicet) intellectus sibi permissus, quam facit ex ordine dialecticæ. Gestit enim mens exilire ad magis generalia, ut requiescat: et post parvam moram fastidit experientiam: sed hæc mala demum aucta sunt a dialectica ob pompas disputationum.

XXI.

Intellectus sibi permissus, in ingenio sobrio et patiente et gravi (præsertim si a doctrinis receptis non impediatur) tentat nonnihil illam alteram viam, quæ recta est, sed exiguo profectu; cum intellectus, nisi regatur et juvetur, res inæqualis sit, et omnino inhabilis ad superandam rerum obscuritatem.

XXII.

Utraque via orditur a sensu et particularibus, et acquiescit in maxime generalibus: sed immensum quiddam discrepant; cum altera perstringat tantum experientiam et particularia cursim; altera in iis rite et ordine versetur; alteri rursus jam a principio constituat generalia quædam abstracta, et inutilia; altera gradatim exurgat ad ea quæ revera naturæ sunt notiora.

XXIII.

Non leve quiddam interest inter humanæ mentis idola, et divinæ mentis ideas, hoc est, inter placita quædam inania, et veras signaturas atque impressiones factas in creaturis, prout inveniuntur.

XXIV.

Nullo modo fieri potest, ut axiomata per argumentationem constituta ad inventionem novorum operum valeant; quia subtilitas naturæ subtilitatem argumentandi multis partibus superat. Sed axiomata, a particularibus rite et ordine abstracta, nova particularia rursus facile indicant, et designant; itaque scientias reddunt activas.

XXV.

Axiomata, quæ in usu sunt, ex tenui et manipulari experientia, et paucis particularibus, quæ ut plurimum occurrunt, fluxere; et sunt fere ad mensuram eorum facta et extensa: ut nil mirum sit, si ad nova particularia non ducant. Quod si forte instantia aliqua, non prius animadversa aut cognita, se offerat, axioma distinctione aliqua frivola salvantur, ubi emendari ipsum verius foret.

XXVI.

Rationem humanam, qua utimur ad naturam, *anticipationes naturæ* (quia res temeraria est et præmatura) at illam rationem quæ debitis modis elicitur a rebus, *interpretationem naturæ*, docendi gratia, vocare consuevimus.

XXVII.

Anticipationes satis firmæ sunt ad consensum; quandoquidem, si homines etiam insanirent ad unum modum et conformiter, illi satis bene inter se congruere possent.

XXVIII.

Quin longe validiores sunt ad subeundum assensum *anticipationes*, quam *interpretationes*; quia ex paucis collectæ, iisque maxime quæ familiariter occurrunt, intellectum statim perstringunt, et phantasiam implent; ubi contra, *interpretationes*, ex rebus admodum variis et multum distantibus sparsim collectæ, intellectum subito percutere non possunt; ut necesse sit eas, quoad opiniones duras et absonas, fere instar mysteriorum fidei videri.

XXIX.

In scientiis, quæ in opinionibus et placitis fundatæ sunt, bonus est usus *anticipationum* et dialecticæ; quando opus est assensum subjugare, non res.

XXX.

Non, si omnia omnium ætatum ingenia coierint, et labores contulerint et transmiserint, progressus magnus fieri poterit in scientiis per *anticipationes*: quin errores radicales, et in primo digestione mentis, ab excellentia functionum et remediorum sequentium non curantur.

XXXI.

Frustra magnum expectatur augmentum in scientiis ex superinductione et insitione novorum super vetera; sed instauratio facienda est ab imis fundа-

mentis, nisi libeat perpetuo circumvolvi in orbem, cum exili et quasi contemnendo progressu.

XXXII.

Antiquis auctoribus suus constat honos, atque adeo omnibus; quia non ingeniorum aut facultatum inducitur comparatio, sed viæ: nosque non judicis, sed indicis personam sustinemus.

XXXIII.

Nullum (dicendum enim est aperte) recte fieri potest judicium nec de via nostra, nec de iis quæ secundum eam inventa sunt, per *anticipationes* (rationem scilicet quæ in usu est) quia non postulandum est ut ejus rei judicio stetur, quæ ipsa in judicium vocatur.

XXXIV.

Neque etiam tradendi aut explicandi ea, quæ adducimus, facilis est ratio; quia, quæ in se nova sunt, intelligenter tamen ex analogia veterum.

XXXV.

Dixit Borgia de expeditione Gallorum in Italiam, eos venisse cum creta in manibus, ut diversoria notarent, non cum armis, ut perrumperent: itidem et nostra ratio est; ut doctrina nostra animos idoneos et capaces subintret: confutationum enim nullus est usus, ubi de principiis et ipsis notionibus, atque etiam de formis demonstrationum dissentimus.

XXXVI.

Restat vero nobis modus tradendi unus et simplex, ut homines ad ipsa particularia et eorum series et ordines adducamus; et ut illi rursus imperent sibi ad tempus abnegationem notionum, et eum rebus ipsis consuescere incipiant.

XXXVII.

Ratio eorum, qui acatalepsiam tenuerunt, et via nostra, initiis suis quodammodo consentiunt; exitu immensum disjunguntur et opponuntur. Illi enim nihil sciri posse simpliciter asserunt; nos, non multum sciri posse in natura, ea, quæ nunc in usu est, via: verum illi exinde auctoritatem sensus et intellectus destruunt; nos auxilia iisdem excogitamus et subministramus.

XXXVIII.

Idola et notiones falsæ, quæ intellectum humanum jam occuparunt, atque in eo alte hærent, non solum mentes hominum ita obsident, ut veritati aditus difficilis pateat; sed etiam dato et concesso aditu, illa rursus in ipsa instauratione scientiarum occurrent, et molesta erunt; nisi homines præmoniti, adversus ea se, quantum fieri potest, muniant.

XXXIX.

Quatuor sunt genera *idolorum*, quæ mentes humanas obsident. Iis (docendi gratia) nomina imposuimus, ut primum genus, *idola tribus*; secundum, *idola specus*; tertium, *idola fori*; quartum, *idola theatri*, vocentur.

XL.

Excitatio notionum et axiomatum per *inductionem* veram, est certe proprium remedium ad *idola* arcenda et summovenda; sed tamen indicatio *idolorum* magni est usus. Doctrina enim de *idolis* similiter se habet ad *interpretationem naturæ*, sicut doctrina de sophisticis elenchis ad dialecticam vulgarem.

XLI.

Idola tribus sunt fundata in ipsa natura humana, atque in ipsa tribu seu gente hominum. Falso enim asseritur, sensum humanum esse mensuram rerum; quin contra, omnes perceptiones, tam sensus quam mentis, sunt ex analogia hominis, non ex analogia universi. Estque intellectus humanus instar speculi inæqualis ad radios rerum, qui suam naturam naturæ rerum immiscet, eamque distorquet et inficit.

XLII.

Idola specus sunt idola hominis individui. Habet enim unusquisque (præter aberrationes naturæ humanæ in genere) specum sive cavernam quandam individuam, quæ lumen naturæ frangit et corrumpit, vel propter naturam cujusque propriam et singularem; vel propter educationem et conversationem cum aliis; vel propter lectionem librorum, et auctoritates eorum quos quisque colit et miratur; vel propter differentias impressionum, prout occurrunt in animo præoccupato et prædisposito, aut in animo æquo et sedato, vel ejusmodi; ut plane spiritus humanus (prout disponitur in hominibus singulis) sit res varia, et omnino perturbata, et quasi fortuita. Unde bene Heraclitus, homines scientias quærere in minoribus mundis, et non in majore sive communi.

XLIII.

Sunt etiam idola tanquam ex contractu et societate humani generis ad invicem, quæ *idola fori*, propter hominum commercium et consortium, appellamus. Homines enim per sermones sociantur; at verba ex captu vulgi imponuntur. Itaque mala et inepta verborum impositio miris modis intellectum obsidet. Neque definitiones aut explicationes, quibus homines docti se munire et vindicare in nonnullis consueverunt, rem ullo modo restituunt. Sed verba plane vim faciunt intellectui, et omnia turbant; et homines ad inanes et innumeras controversias et commenta deducunt.

XLIV.

Sunt denique idola, quæ immigrarunt in animos hominum ex diversis dogmatibus philosophiarum, ac etiam ex perversis legibus demonstrationum; quæ *idola theatri* nominamus; quia quot philosophiæ receptæ aut inventæ sunt, tot fabulas productas et actas censemus, quæ mundos effecerunt fictitios et scenicos. Neque de his quæ jam habentur, aut etiam de veteribus philosophiis et sectis tantum loquimur, cum complures aliæ ejusmodi fabulæ componi et concinnari possint; quandoquidem errorum prorsus diversorum causæ sint nihilominus fere communes. Neque rursus de philosophiis universalibus tantum hoc intelligimus, sed etiam de principiis et axioma-

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tibus compluribus scientiarum, quæ ex traditione et fide et neglectu invaluerunt. Verum de singulis istis generibus *idolorum* fusius et distinctius dicendum est, ut intellectui humano cautum sit.

XLV.

Intellectus humanus ex proprietate sua facile supponit majorem ordinem et æqualitatem, in rebus, quam invenit: et cum multa sint in natura monodica et plena imparitatis, tamen affingit parallela, et correspondentia, et relativa, quæ non sunt. Hinc commenta illa, " In cœlestibus omnia moveri per circulos perfectos," lineis spiralibus et draconibus (nisi nomine tenus) prorsus rejectis. Hinc elementum ignis cum orbe suo introductum est ad constituendam quaternionem cum reliquis tribus, quæ subjiciuntur sensui. Etiam elementis (quæ vocant) imponitur ad placitum, decupla proportio excessus, in raritate ad invicem; et hujusmodi somnia. Neque vanitas ista tantum valet in dogmatibus, verum etiam in notionibus simplicibus.

XLVI.

Intellectus humanus in iis quæ semel placuerunt (aut quia recepta sunt et credita, aut quia delectant) alia etiam omnia trahit ad suffragationem et consensum eum illis: et licet major sit instantiarum vis et copia, quæ occurrunt in contrarium; tamen eas aut non observat, aut contemnit, aut distinguendo summovet et rejicit, non sine magno et pernicioso præjudicio, quo prioribus illis syllepsibus auctoritas maneat inviolata. Itaque recte respondit ille, qui cum suspensa tabula in templo ei monstraretur eorum, qui vota solverant, quod naufragii periculo elapsi sint, atque interrogando premeretur, anne tum quidem deorum numen agnosceret: quæsivit denuo, " At ubi sint illi depicti qui post vota nuncupata perierint?" Eadem ratio est fere omnis superstitionis, ut in astrologicis, in somniis, ominibus, nemesibus, et hujusmodi; in quibus homines, delectati hujusmodi vanitatibus, advertunt eventus ubi implentur; ast ubi fallunt (licet multo frequentius) tamen negligunt et prætereunt. At longe subtilius serpit hoc malum in philosophiis et scientiis; in quibus quod semel placuit, reliqua (licet multo firmiora et potiora) inficit, et in ordinem redigit. Quinetiam licet abfuerit ea, quam diximus, delectatio et vanitas, is tamen humano intellectui error est proprius et perpetuus, ut magis moveatur et excitetur affirmativis, quam negativis; cum rite et ordine æquum se utrique præbere debeat; quin contra, in omni axiomate vero constituendo, major est vis instantiæ negativæ.

XLVII.

Intellectus humanus illis, quæ simul et subito mentem ferire et subire possunt, maxime movetur; a quibus phantasia impleri et inflari consuevit; reliqua vero modo quodam, licet imperceptibili, ita se habere fingit et supponit, quomodo se habent pauca illa quibus mens obsidetur; ad illum vero transcursum ad instantias remotas et heterogeneas, per quas axiomata tanquam igne probantur, tardus omnino intellectus est, et inhabilis, nisi hoc illi per duras leges et violentum imperium imponatur.

XLVIII.

Gliscit intellectus humanus, neque consistere aut acquiescere potis est, sed ulterius petit; at frustra. Itaque incogitabile est ut sit aliquid extremum aut extimum mundi, sed semper quasi necessario occurrit ut sit aliquid ulterius. Neque rursus cogitari potest quomodo æternitas defluxerit ad hunc diem; cum distinctio illa, quæ recipi consuevit, quod sit *infinitum a parte ante, et a parte post*, nullo modo constare possit; quia inde sequeretur, quod sit unum infinitum alio infinito majus, atque ut consumatur infinitum, et vergat ad finitum. Similis est subtilitas de lineis semper divisibilibus, ex impotentia cogitationis. At majore cum pernicie intervenit hæc impotentia mentis in inventione causarum: nam eum maxime universalia in natura positiva esse debeant, quemadmodum inveniuntur, neque sunt revera causabilia: tamen intellectus humanus, nescius acquiescere, adhuc appetit notiora. Tum vero, ad ulteriora tendens, ad proximiora recidit, videlicet ad causas finales; quæ sunt plane ex natura hominis, potius quam universi: atque ex hoc fonte philosophiam miris modis corruperunt. Est autem æque imperiti et leviter philosophantis, in maxime universalibus causam requirere, ac in subordinatis et subalternis causam non desiderare.

XLIX.

Intellectus humanus luminis sicci non est; sed recipit infusionem a voluntate et affectibus; id quod generat *ad quod vult scientias:* quod enim mavult homo verum esse, id potius credit. Rejicit itaque difficilia, ob inquirendi impatientiam; sobria, quia coarctant spem; altiora naturæ, propter superstitionem; lumen experientiæ, propter arrogantiam et fastum, ne videatur mens versari in vilibus et fluxis; paradoxa, propter opinionem vulgi; denique innumeris modis, iisque interdum imperceptibilibus, affectus intellectum imbuit et inficit.

L.

At longe maximum impedimentum et aberratio intellectus humani provenit a stupore et incompetentia et fallaciis sensuum; ut ea, quæ sensum feriunt, illis quæ sensum immediate non feriunt, licet potioribus, præponderent. Itaque contemplatio fere desinit eum aspectu; adeo ut rerum invisibilium exigua aut nulla sit observatio. Itaque omnis operatio spirituum in corporibus tangibilibus inclusorum latet, et homines fugit. Omnis etiam subtilior metaschematismus in partibus rerum crassiorum (quam vulgo alterationem vocant, cum sit revera latio per minima) latet similiter: et tamen nisi duo ista, quæ diximus, explorata fuerint et in lucem producta, nihil magni fieri potest in natura quoad opera. Rursus ipsa natura aëris communis, et corporum omnium, quæ aërem tenuitate superant (quæ plurima sunt) fere incognita est. Sensus enim per se res infirma est et aberrans; neque organa ad amplificandos sensus aut acuendos multum valent; sed omnis verior interpretatio naturæ conficitur per

instantias, et experimenta idonea et apposita; ubi sensus de experimento tantum, experimentum de natura et re ipsa judicat.

LI.

Intellectus humanus fertur ad abstracta propter naturam propriam; atqoe ea, quæ fluxa sunt, finget esse constantia. Melius aotem est naturam secare, quam abstrahere; id qood Democriti schola fecit, quæ magis penetravit in natnram quam reliquæ. Materia potius considerari debet, et ejus schematismi et metaschematismi, atque aetus purus, et lex actus sive motus; formæ enim commenta animi humani suat, nisi libeat leges illas aetus formas appellare.

LII.

Hojusmodi itaqne sunt *idola* qoæ vocamus *idola tribus;* quæ ortum habent aot ex æqualitate sobatantiæ spiritus humani; aot ex præoccupatione ejos; aut ab angustiis ejus; aot ab inquieto motu ejos; sut ab infusiooe affectuom; aut ab iacompetentia sensuum; aut ab impressionis modo.

LIII.

Idola specus ortum habent ex propria cnjusque natura et animi et corporis; atqne etiam ex educatione, et consuetodine, et fortuitis. Quod genus, licet sit varium et multiplex, tamen ea proponemos, in quibus maxima cantio est, quæqoe plorimum valent ad polluendum intellectum, ne sit purus.

LIV.

Adamant homines scientias et coatemplationes particolares; aot quia auctores et inventores se earum credunt; aut quia plurimom in illis operæ posuernnt, iisqoe maxime assueverunt. Hujnsmodi vero hominos, si ad philosophiam et contemplationes uoiversales se contulerint, illas ex prioribus phantasiis detorquent et corrumpunt; id qood maxime conspicuum eernitur in Aristotele, qoi natoralem suam philosophiam logicæ suæ prorsus mancipavit, ut eam fere inntilem et contentiosam reddiderit. Chemicorum aotem genus, ex paucis experimentis fornacis, philosophism constitoerunt phantasticam, et ad paaca spectantem: quinetiam Gilbertus, postqoam in contemplationibus magnetis se laboriosissime exercuisset, confinxit statim philosophism consentaneam rei apud ipsum præpollenti.

LV.

Maximum et velut radicale discrimen ingeniorum, quoad philosophiam et scientias, illud est; quod alia ingenia siat fortiora et aptiora ad notandas rerum differentias; alia, ad notandas rerum similitudines. Ingenia enim constaotia et acuta figere contemplationes, et morari, et hærere in omni subtilitate differentiarum possunt: ingenia autem sublimia et discursiva etiam tenoissimas et catholicas rerum similitudiaes et agnoscunt et componunt: utrumque autem ingenium faeile labitur in excessum, prensando aut gradus rerum, aut umbras.

LVI.

Reperiuntur ingenia alia in admirationem antiquitatis, alia in amorem et amplexum novitatis effusa; pauca vero ejus temperamenti sunt, ut modum teaere possint, qoin aut quæ recte posita snnt ab antiquis convellant, aot ea contemnant quæ reete afferuntur a novis. Hoe vero magno scientiarum et philosophiæ detrimento fit, cum studia potius sint antiquitatis et novitatis, quam judieia: veritas autem non a felieitate temporis alicujos, quæ res varia est; sed a lumine naturæ et experientiæ, quod æternum est, peteoda est. Itaque abneganda sunt ista studia; et videndom, ne intellectus ab illis ad consensum abripiatur.

LVII.

Contemplationes naturæ et corporum in simplieitate soa intellectom frangunt et eomminuunt: contemplationes vero naturæ et corporum in compositiooe et eonfiguratione sua, intellectum stupefaciont et solvunt. Id optime cernitur in schola Leoeippi et Democriti, collata cum reliqois philosophiis. Illa enim ita versatur in particolis rerum, ut fabricas fere negligat; reliquæ autem ita fabricas intuentur attonitæ, ut ad simplicitatem naturæ non penetrent: itaque alternandæ sunt contemplatioaes istæ, et vicissim sumeadæ; ot intellectus reddatur simul penetrans et capax; et evitentur ea, qoæ diximus, iocommoda, atque idola ex iis provenientia.

LVIII.

Talis itaque esto prudentia contemplativa in arcendis et summovendis *idolis specus;* quæ aut ex prædominantia, aut ex excessu compositionis et divisionis, sut ex studiis erga tempora, aut ex objectis largis et minutis, maxime ortum habent. Generaliter autem pro suspecto habendum unicuiqoe rerum naturam contemplanti, quiequid intellectum suum potissimom capit et detinet; tantoqoe major adhibenda in hujusmodi placitis est cautio, ut intellectus servetur æquus et purus.

LIX.

At *idola fori* omnium molestissima sunt; quæ ex fœdere verbotum et nominum se insinuarunt in intelleetum. Credunt enim homines, rationem suam verbis imperare. Sed fit etiam ut verba vim suam super intellectom retorqueant et reflectant; qood philosophiam et scientias reddidit sophisticas et inaetivas. Verba autem pleronqne ex eaptu vulgi induntur, atque per liness, vulgari intelleetui maxime conspicuas, res secant. Cum autem intellectus acutior, aut observatio diligentior, eas lineas transferre velit, ut illæ siat magis secundum naturam; verba obstrepunt. Unde fit ut magnæ et solennes disputationes hominum doctorum sæpe in controversias circa verba et nomina desinant; a quibus (ex more et prudentia mathematicorum) incipere eonsultius foret, easque per definitiones in ordinem redigere. Quæ tamen definitiones, in naturalibus et materiatis, huic malo mederi non possunt; quoniam et ipsæ definitiones ex verbis constant, et verba gignunt verba: adeo ut necesse sit ad instantias particulares, earumque series et ordines recurrere; ut mox dicemos, eom ad modom et rationem constituendi notiones et axiomata deventum fuerit.

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LX.

Idola, quæ per verba intellectui imponuntur, duorum generum sunt: aut enim sunt rerum nomina, quæ non sunt (quemadmodum enim sunt res, quæ nomine carent, per inobservationem; ita sunt et nomina, quæ carent rebus, per suppositionem phantasticum) aut sunt nomina rerum, quæ sunt, sed confusa et male terminata, et temere et inæqualiter a rebus abstracta. Prioris generis sunt, fortuna, primum mobile, planetarum orbes, elementum ignis, et hujusmodi commenta, quæ a vanis et falsis theoriis ortum habent. Atque hoc genus *idolorum* facilius ejicitur, quia per constantem abnegationem et antiquationem theoriarum exterminari possunt.

At alterum genus perplexum est, et alte hærens; quod ex mala et imperita abstractione excitatur. Exempli gratia, accipiatur aliquod verbum (*humidum*, si placet) et videamus quomodo sibi constent, quæ per hoc verbum significantur; et invenietur verbum istud, *humidum*, nihil aliud, quam nota confusa diversarum actionum, quæ nullam constantiam aut reductionem patiuntur. Significat enim et quod circa aliud corpus facile se circumfundit; et quod in se est indeterminabile, nec consistere potest: et quod facile cedit undique; et quod facile se dividit et dispergit; et quod facile se unit et colligit; et quod facile fluit et in motu ponitur; et quod alteri corpori facile adhæret, idque madefacit; et quod facile reducitur in liquidum, sive colliquatur, cum antea consisteret. Itaque cum ad hujus nominis prædicationem et impositionem ventum sit; si alia accipias, flamma humida est; si alia accipias, aër humidus non est; si alia, pulvis minutus humidus est; si alia, vitrum humidum est: ut facile appareat istam notionem ex aqua tantum, et communibus et vulgaribus liquoribus, absque ulla debita verificatione, temere abstractam esse.

In verbis autem gradus sunt quidem pravitatis et erroris. Minus vitiosum genus est nominum substantiæ alicujus, præsertim specierum infimarum, et bene deductarum (nam notio cretæ, luti, bona; terræ, mala): vitiosius genus est actionum, ut *generare, corrumpere, alterare*: vitiosissimum qualitatum (exceptis objectis sensus immediatis) ut *gravis, levis, tenuis, densi*, etc. Et tamen in omnibus istis fieri non potest, quin sint aliæ notiones aliis paulo meliores, prout in sensum humanum incidit rerum copia.

LXI.

At *idola theatri* innata non sunt, nec occulto insinuata in intellectum; sed ex fabulis theoriarum, et perversis legibus demonstrationum, plane indita et recepta. In his autem confutationes tentare et suscipere consentaneum prorsus non est illis, quæ a nobis dicta sunt. Cum enim nec de principiis consentiamus, nec de demonstrationibus, tollitur omnis argumentatio. Id vero bono fit fato, ut antiquis suus constet honos. Nihil enim illis detrahitur, cum de via omnino quæstio sit. Claudus enim (ut dicitur) in via, antevertit cursorem extra viam. Etiam illud manifesto liquet, currenti extra viam, quo habilior sit et velocior, eo majorem contingere aberrationem.

Nostra vero inveniendi scientias ea est ratio, ut non multum ingeniorum acumeni et robori relinquatur; sed quæ ingenia et intellectus fere exæquet. Quemadmodum enim ad hoc ut linea recta fiat, aut circulus perfectus describatur, multum est in constantia et exercitatione manus, si fiat ex vi manus propria, sin autem adhibeatur regula, aut circinus, parum aut nihil; omnino similis est nostra ratio. Licet autem confutationum particularium nullus sit usus; de sectis tamen et generibus hujusmodi theoriarum nonnihil dicendum est; atque etiam paulo post de signis exterioribus, quod se male habeant; et postremo de causis tantæ infelicitatis, et tam diuturni et generalis in errore consensus; ut ad vera minus difficilis sit aditus, et intellectus humanus volentius expurgetur, et *idola* dimittat.

LXII.

Idola theatri, sive theoriarum, multa sunt, et multo plura esse possunt, et aliquando fortasse erunt. Nisi enim, per multa jam secula, hominum ingenia circa religionem et theologiam occupata fuissent; atque etiam politiæ civiles (præsertim monarchiæ) ab istiusmodi novitatibus, etiam in contemplationibus, essent aversæ; ut cum periculo et detrimento fortunarum suarum in illas homines incumbant, non solum præmio destituti, sed etiam contemptui, et invidiæ expositi; complures aliæ proculdubio philosophiarum et theoriarum sectæ, similes illis, quæ magna varietate olim apud Græcos floruerunt, introductæ fuissent. Quemadmodum enim super *phænomena* ætheris plura *themata* cœli confingi possunt; similiter, et multo magis, super phænomena philosophiæ fundari possunt et constitui varia dogmata. Atque hujusmodi *theatri* fabulæ habent etiam illud, quod in theatro poëtarum usu venit; ut narrationes fictæ ad scenam narrationibus ex historia veris concinniores sint et elegantiores, et quales quis magis vellet.

In genere autem, in materiam philosophiæ sumitur aut multum ex paucis, aut parum ex multis; ut utrinque philosophia super experientiæ et naturalis historiæ nimis angustam basin fundata sit, atque ex paucioribus, quam par est, pronunciet. Rationale enim genus philosophantium ex experientia arripiunt varia et vulgaria, eaque neque certo comperta, nec diligenter examinata et pensitata; reliqua in meditatione atque ingenii agitatione ponunt.

Est et aliud genus philosophantium, qui in paucis experimentis sedulo et accurate elaborarunt, atque inde philosophias educere et confingere ausi sunt; reliqua miris modis ad ea detorquentes.

Est et tertium genus eorum, qui theologiam et traditiones ex fide et veneratione immiscent; inter quos vanitas nonnullorum, ad petendas et derivandas scientias, a spiritibus scilicet et geniis, deflexit; ita ut stirps errorum, et *philosophia falsa*, genere triplex sit: *sophistica, empirica*, et *superstitiosa*.

LXIII.

Primi generis exemplum in Aristotele maxime conspicuum est, qui philosophiam naturalem dialectica sua corrupit; cum mundum ex categoriis effecerit; animæ humanæ, nobilissimæ substantiæ, genus

ex vocibus secundæ intentionis tribuerit; negotium *densi* et *rari*, per quod corpora subeunt majores et minores dimensiones sive spatia, per frigidam distinctionem actus et potentiæ transegerit; motum singulis corporibus unicum et proprium, et, si participent ex alio motu, id aliunde moveri, asseruerit, et innumera alia, pro arbitrio suo, naturæ rerum imposuerit: magis ubique solicitus quomodo quis respondendo se explicet, et aliquid reddatur in verbis positivum, quam de interna rerum veritate; quod etiam optime se ostendit in comparatione philosophiæ ejus, ad alias philosophias, quæ apud Græcos celebrantur. Habent enim homoiomera Anaxagoræ, atomi Leucippi et Democriti, cœlum et terra Parmenidis, lis et amicitia Empedoclis, resolutio corporum in adiaphoram naturam ignis, et replicatio eorundem ad densum Heracliti, aliquid ex philosopho naturali; et rerum naturam, et experientiam, et corpora sapiunt; ubi Aristotelis physica nihil aliud, quam dialecticæ voces plerumque sonet; quam etiam in metaphysicis sub solenniore nomine, et ut magis scilicet realis, non nominalis, retractavit. Neque illud quenquam moveat, quod in libris ejus "De animalibus," et in "Problematibus," et in aliis suis tractatibus, versatio frequens sit in experimentis. Ille enim prius decreverat, neque experientiam ad constituenda decreta et axiomata rite consuluit; sed postquam pro arbitrio suo decrevisset, experientiam ad sua placita tortam circumduxit, et captivam; ut hoc etiam nomine magis accusandus sit, quam sectatores ejus moderni (scholasticorum philosophorum genus) qui experientiam omnino deseruerunt.

LXIV.

At philosophiæ genus *empiricum* placita magis deformia et monstrosa educit, quam *sophisticum* aut rationale genus; quia non in luce notionum vulgarium (quæ licet tenuis sit et superficialis, tamen est quodammodo universalis, et ad multa pertinens) sed in paucorum experimentorum angustiis et obscuritate fundatum est. Itaque talis philosophia illis, qui in hujusmodi experimentis quotidie versantur, atque ex ipsis phantasiam contaminarunt, probabilis videtur et quasi certa: cæteris, incredibilis et vana. Cujus exemplum notabile est in chemicis, eorumque dogmatibus; alibi autem vix hoc tempore inveniturus, nisi forte in philosophia Gilberti. Sed tamen circa hujusmodi philosophias cautio nullo modo prætermittenda erat; quia mente jam prævidemus et auguramur, si quando homines, nostris monitis excitati, ad experientiam se serio contulerint (valere jussis doctrinis sophisticis) tum demum, propter præmaturam et præproperam intellectus festinationem, et saltum, sive volatum ad generalia, et rerum principia, fore ut magnum ab hujusmodi philosophiis periculum immineat: cui malo etiam nunc obviam ire debemus.

LXV.

At corruptio philosophiæ ex *superstitione*, et theologia admista, latius omnino patet, et plurimum mali infert, aut in philosophias integras, aut in earum partes. Humanus enim intellectus non minus impressionibus phantasiæ est obnoxius, quam impressionibus vulgarium notionum. Pugnax enim genus philosophiæ et *sophisticum* illaqueat intellectum; at illud alterum phantasticum et tumidum, et quasi poëticum, magis blanditur intellectui. Inest enim homini quædam intellectus ambitio, non minor quam voluntatis; præsertim in ingeniis altis et elevatis.

Hujus autem generis exemplum inter Græcos illucescit, præcipue in Pythagora, sed cum superstitione magis crassa et onerosa conjunctum; at periculosius et subtilius in Platone, atque ejus schola. Invenitur etiam hoc genus mali in partibus philosophiarum reliquarum, introducendo formas abstractas, et causas finales, et causas primas: omittendo sæpissime medias, et hujusmodi. Huic autem rei summa adhibenda est cautio. Pessima enim res est errorum apotheosis, et pro peste intellectus habenda est, si vanis accedat veneratio. Huic autem vanitati nonnulli ex modernis summa levitate ita indulserunt, ut in primo capitulo Geneseos, et in libro Job, et aliis Scripturis sacris, philosophiam naturalem fundare conati sint; inter *viva quærentes mortua*. Tantoque magis hæc vanitas inhibenda venit, et coërcenda, quia ex divinorum et humanorum malesana admistione, non solum educitur philosophia phantastica, sed etiam religio hæretica. Itaque salutare admodum est, si mente sobria fidei tantum dentur quæ fidei sunt.

LXVI.

Et de malis auctoritatibus philosophiarum, quæ aut in *vulgaribus notionibus*, aut in *paucis experimentis*, aut in *superstitione* fundatæ sunt, jam dictum est. Dicendum porro est et de vitiosa materia contemplationum, præsertim in philosophia naturali. Inficitur autem intellectus humanus ex intuitu eorum, quæ in artibus mechanicis fiunt, in quibus corpora per compositiones aut separationes ut plurimum alterantur; ut cogitet simile quiddam etiam in natura rerum universali fieri. Unde fluxit commentum illud elementorum, deque illorum concursu, ad constituenda corpora naturalia. Rursus, cum homo naturæ libertatem contempletur, incidit in species rerum, animalium, plantarum, mineralium; unde facile in eam labitur cogitationem, ut existimet esse in natura quasdam formas rerum primarias, quas natura educere molitur; atque reliquam varietatem ex impedimentis et aberrationibus naturæ in opere suo conficiendo, aut ex diversarum specierum conflictu, et transplantatione alterius in alteram, provenire. Atque prima cogitatio qualitates primas elementares, secunda proprietates occultas et virtutes specificas, nobis peperit; quarum utraque pertinet ad inania contemplationum compendia, in quibus acquiescit animus, et a solidioribus avertitur. At medici, in secundis rerum qualitatibus et operationibus, attrahendi, repellendi, attenuandi, inspissandi, dilatandi, astringendi, discutiendi, maturandi, et hujusmodi, operam præstant meliorem; atque, nisi ex illis duobus (quæ dixi) compendiis (qualitatibus scilicet elementaribus, et virtutibus specificis) illa altera (quæ recte notata sunt) corrumperent, reducendo illa ad primas qualitates, earumque mixturas subtiles et incommensurabiles; aut ea non producendo, cum majore et dili-

gentiore observatione, ad qualitates tertias et quartas, sed contemplationem intempestive abrumpendo; illi multo melius profecissent. Neque hujusmodi virtutes (non dico eædem, sed similes) in humani corporis medicinis tantum exquirendæ sunt; sed etiam in cæterorum corporum naturalium mutationibus.

Sed multo adhuc majore cum malo fit, quod quiescientia rerum principia, *ex quibus*, et non moventia, *per quæ* res fiunt, contemplentur et inquirant. Illa enim ad sermones, ista ad opera spectant. Neque enim vulgares illæ differentiæ motus, quæ in naturali philosophia recepta notantur, *generationis, corruptionis, augmentationis, diminutionis, alterationis*, et *lationis*, ullius sunt pretii. Quippe hoc sibi volunt; si corpus, alias non mutatum, loco tamen moveatur, hoc *lationem* esse; si, manente et loco et specie, qualitate mutetur, hoc *alterationem* esse; si vero ex illa mutatione moles ipsa, et quantitas corporis non eadem maneat, hoc *augmentationis* et *diminutionis* motum esse; si eatenus mutentur, speciem ipsam et substantiam mutent, et in alia migrent, hoc *generationem* et *corruptionem* esse. At ista mere popularia sunt, et nullo modo in naturam penetrant; suntque mensuræ et periodi tantum, non species motus. Innuunt enim illud, *Hucusque*, et non, *Quomodo*, vel *Ex quo fonte*. Neque enim de corporum appetitu, aut de partium eorum processu, aliquid significant; sed tantum cum motus ille rem aliter ac prius, crasso modo, sensui exhibeat, inde divisionem suam auspicantur. Etiam cum de causis motuum aliquid significare volunt, atque divisionem ex illis instituere, differentiam motus naturalis et violenti, maxima cum socordia, introducunt; quæ et ipsa omnino ex notione vulgari est; cum omnis motus violentus etiam naturalis revera sit, scilicet cum externum efficiens naturam alio modo in opere ponet, quam quo prius.

At hisce omissis, si quis (exempli gratia) observaverit, inesse corporibus appetitum contactus ad invicem, ut non patiantur unitatem naturæ prorsus dirimi aut abscindi, ut vacuum detur; aut si quis dicat, inesse corporibus appetitum se recipiendi in naturalem suam dimensionem vel tensuram, ut, si ultra eam, aut citra eam, comprimantur aut distrahantur, statim in veterem sphæram et exporrectionem suam se recuperare et remittere moliantur; aut si quis dicat, inesse corporibus appetitum congregationis ad massas connaturalium suorum, densorum videlicet versus orbem terræ, tenuiorum et rariorum versus ambitum cœli; hæc et hujusmodi vere physica sunt genera motuum. At illa altera plane logica sunt et scholastica, ut ex hac collatione eorum manifesto liquet.

Neque minus etiam malum est, quod in philosophiis et contemplationibus suis, in principiis rerum atque ultimitatibus naturæ investigandis et tractandis, opera insumatur; cum omnis utilitas et facultas operandi in mediis consistat. Hinc fit, ut abstrahere naturam homines non desinant, donec ad materiam potentialem et informem ventum fuerit; nec rursus secare naturam desinant, donec perventum fuerit ad atomum; quæ, etiamsi vera essent, tamen ad juvandas hominum fortunas parum possunt.

LXVII.

Danda est etiam cautio intellectui, de intemperantiis philosophiarum, quoad assensum prædendum aut cohibendum; quia hujusmodi intemperantiæ videntur *idola* figere et quodammodo perpetuare, ne detur aditus ad ea summovenda.

Duplex autem est excessus; alter eorum, qui facile *pronunciant*, et scientias reddunt positivas et magistrales, alter eorum, qui *acatalepsiam* introduxerunt, et inquisitionem vagam sine termino. Quorum primus intellectum deprimit, alter enervat. Nam Aristotelis philosophia, postquam cæteras philosophias (more Ottomanorum erga fratres suos) pugnacibus confutationibus contrucidasset, de singulis pronunciavit; et ipse rursus quæstiones ex arbitrio suo subornat, deinde conficit: ut omnia certa sint et decreta: quod etiam apud successiones suas valet, et in usu est.

At Platonis schola *acatalepsiam* introduxit, primo tanquam per jocum et ironiam, in odium veterum sophistarum, Protagoræ, Hippiæ, et reliquorum, qui nihil tam verebantur, quam ne dubitare de re aliqua viderentur. At nova academia *acatalepsiam* dogmatizavit, et ex professo tenuit: quæ licet honestior ratio sit, quam *pronunciandi* licentia, cum ipsi pro se dicant, se minime confundere inquisitionem, ut Pyrrho fecit et Ephectici, sed habere quod sequantur ut probabile, licet non habeant quod teneant ut verum; tamen postquam animus humanus de veritate invenienda semel desperaverit, omnino omnia fiunt languidiora: ex quo fit, ut deflectant homines potius ad amœnas disputationes et discursus, et rerum quasdam peragrationes, quam in severitate inquisitionis se sustineant. Verum quod a principio diximus, et perpetuo agimus, sensui et intellectui humano, eorumque infirmitati, auctoritas non est deroganda, sed auxilia præbenda.

LXVIII.

Atque de *idolorum* singulis generibus, eorumque apparatu, jam diximus; quæ omnia constanti et solenni decreto sunt abneganda et renunciandа, et intellectus ab iis omnino liberandus est et expurgandus, ut non alius fere sit aditus ad regnum hominis, quod fundatur in scientiis, quam ad regnum cœlorum; "in quod, nisi sub persona infantis, intrare non datur."

LXIX.

At pravæ demonstrationes, *idolorum* veluti munitiones quædam sunt et præsidia; eæque, quas in dialecticis habemus, id fere agunt, ut mundum plane cogitationibus humanis, cogitationes autem verbis addicant et mancipent. Demonstrationes vero potentia quadam philosophiæ ipsæ sunt et scientiæ. Quales enim eæ sunt, ac prout rite aut male institutæ, tales sequuntur philosophiæ et contemplationes. Fallunt autem, et incompetentes sunt eæ, quibus utimur in universo illo processu, qui a sensu et rebus ducit ad axiomata et conclusiones. Qui quidem processus quadruplex est, et vitia ejus totidem. Primo, impressiones sensus ipsius vitiosæ sunt; sensus enim et destituit et fallit. At destitu-

tionibus substitutiones, fallaciis rectificationes debentur. Secundo, notiones ab impressionibus sensuum male abstrahuntur; et interminatæ et confusæ sunt, quas terminatas et bene finitas esse oportuit. Tertio, inductio mala est, quæ per enumerationem simplicem principia concludit scientiarum, non adhibitis exclusionibus et solutionibus, sive separationibus naturæ debitis. Postremo, modus ille inveniendi et probandi, ut primo principia maxime generalia constituantur, deinde media axiomata ad ea applicentur et probentur, errorum mater est, et scientiarum omnium calamitas. Verum de istis, quæ jam obiter perstringimus, fusius dicemus, cum veram interpretandæ naturæ viam, absolutis istis expiationibus et expurgationibus mentis, proponemus.

LXX.

Sed demonstratio longe optima est experientia; modo hæreat in ipso experimento. Nam si traducatur ad alia, quæ similia existimantur, nisi rite et ordine fiat illa traductio, res fallax est. At modus experiendi, quo homines nunc utuntur, cæcus est et stupidus. Itaque cum errant et vagantur nulla via certa, sed ex occursu rerum tantum consilium capiunt, circumferuntur ad multa, sed parum promovent; et quandoque gestiunt, quandoque distrahuntur; et semper inveniunt quod ulterius quærant. Fere autem ita fit, ut homines leviter et tanquam per ludum experiantur, variando paululum experimenta jam cognita; et, si res non succedat, fastidiendo, et conatum deserendo. Quod si magis serio et constanter ac laboriose ad experimenta se accingant; tamen in uno aliquo experimento eruendo operam collocant; quemadmodum Gilbertus in magnete, chemici in auro. Hoc autem faciunt homines, instituto non minus imperito, quam tenui. Nemo enim alicujus rei naturam in ipsa re feliciter perscrutatur; sed amplianda est inquisitio ad magis communia.

Quod si etiam scientiam quandam et dogmata ex experimentis moliantur; tamen semper fere studio præpropero et intempestivo deflectunt ad praxin: non tantum propter usum et fructum ejusmodi praxeos; sed ut in opere aliquo novo veluti pignus sibi arripiant, se non inutiliter in reliquis versatoros: atque etiam aliis se venditent, ad existimationem meliorem comparandam de iis in quibus occupati sunt. Ita fit, ut, more Atalantæ, de via decedant ad tollendum aureum pomum; interim vero cursum interrumpant, et victoriam emittant e manibus. Verum in experientiæ vero curriculo, eoque ad nova opera producendo, divina prudentia omnino et ordo pro exemplari sumenda sunt. Deus autem primo die creationis lucem tantum creavit, eique operi diem integrum attribuit; nec aliquid materiati operis eo die creavit. Similiter et ex omnimoda experientia, primum inventio causarum et axiomatum verorum elicienda est; et lucifera experimenta, non fructifera quærenda. Axiomata autem recte inventa et constituta praxin non strictim, sed confertim instruunt: et operum agmina ac turmas post se trahunt. Verum de experiendi viis, quæ non minus quam viæ judicandi obsessæ sunt et interclusæ, postea dicemus: impræsentiarum de experientia vulgari, tanquam de mala demonstratione, tantum locuti. Jam vero postulat ordo rerum, ut de iis, quorum paulo ante mentionem fecimus, signis (quod philosophiæ et contemplationes in usu male se habeant) et de causis rei primo intuitu tam mirabilis et incredibilis, quædam subjungamus. Signorum enim notio præparat assensum: causarum vero explicatio tollit miraculum: quæ duo ad extirpationem idolorum ex intellectu faciliorem et clementiorem multum juvant.

LXXI.

Scientiæ, quas habemus, fere a Græcis fluxerunt. Quæ enim scriptores Romani, aut Arabes, aut recentiores addiderunt; non multa, aut magni momenti sunt; et qualiacunque sint, fundata sunt super basin eorum quæ inventa sunt a Græcis. Erat autem sapientia Græcorum professoria, et in disputationes effusa: quod genus inquisitioni veritatis adversissimum est. Itaque nomen illud sophistarum, quod per contemptum, ab iis, qui se philosophos haberi voluerunt, in antiquos rhetores rejectum et traductum est, Gorgiam, Protagoram, Hippiam, Polum; etiam universo generi competi, Platoni, Aristoteli, Zenoni, Epicuro, Theophrasto; et eorum successoribus, Chrysippo, Carneadi, reliquis. Hoc tantum intererat; quod prius genus vagum fuerit et mercenarium, civitates circumcursando, et sapientiam suam ostentando, et mercedem exigendo; alterum vero solennius et generosius, quippe eorum qui sedes fixas habuerunt, et scholas aperuerunt, et gratis philosophati sunt. Sed tamen utrumque genus (licet cætera dispar) professorium erat, et ad disputationes rem deducebat, et sectas quasdam atque hæreses philosophiæ instituebat et propugnabat; ut essent fere doctrinæ eorum (quod non male cavillatus est Dionysius in Platonem) "Verba otiosorum senum ad imperitos juvenes." At antiquiores illi ex Græcis, Empedocles, Anaxagoras, Leucippus, Democritus, Parmenides, Heraclitus, Xenophanes, Philolaus, reliqui (nam Pythagoram, ut superstitiosum, omittimus) scholas (quod novimus) non aperuerunt; sed majore silentio, et severios et simplicius, id est, minore cum affectatione et ostentatione, ad inquisitionem veritatis se contulerunt. Itaque et melius, ut arbitramur, se gesserunt; nisi quod opera eorum a levioribus istis, qui vulgari captui et affectui magis respondent ac placent, tractu temporis extincta sint: tempore (ut fluvio) leviora et magis inflata ad nos devehente, graviora et solida mergente. Neque tamen isti a nationis vitio prorsus immunes erant; sed in ambitionem et vanitatem sectæ condendæ, et auræ popularis captandæ, nimium propendebant. Pro desperata autem habenda est veritatis inquisitio, cum ad hujusmodi inania deflectat. Etiam non omittendum videtur judicium illud, sive vaticinium potius sacerdotis Ægyptii de Græcis: "Quod semper pueri essent; neque haberent antiquitatem scientiæ, aut scientiam antiquitatis." Et certe habent id quod puerorum est; ut ad garriendum prompti sint, generare autem non possint: nam verbosa videtur sapientia eorum, et operum sterilis. Itaque ex ortu et gente philosophiæ, quæ in usu est, quæ capiuntur signa, bona non sunt.

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LXXII.

Neque multo meliora sunt signa, quæ ex natura temporis et ætatis capi possunt, quam quæ ex natura loci et nationis. Angusta enim erat et tenuis notitia per illam ætatem, vel temporis, vel orbis: quod longe pessimum est, præsertim iis qui omnia in experientia ponunt. Neque enim mille annorum historiam, quæ digna erat nomine historiæ, habebunt; sed fabulas et rumores antiquitatis. Regionum vero tractuumque mundi exiguam partem noverant; eum omnes hyperboreos, Scythas; omnes occidentales, Celtas indistincte appellarent: nil in Africa ultra citimam Æthiopiæ partem, nil in Asia ultra Gangem; multo minus novi orbis provincias, ne par quidem sane, aut famam aliquam certam et constantem, nossent; imo et plurima climata et zonæ, in quibus populi infiniti spirant et degunt, tanquam inhabitabiles ab illis pronunciata sint: quinetiam peregrinationes Democriti, Platonis, Pythagoræ, non longinquæ profecto, sed potius suburbanæ, ut magnum aliquid celebrarentur. Nostris autem temporibus, et novi orbis partes complures, et veteris orbis extrema undique innotescunt; et in infinitum experimentorum cumulus excrevit. Quare si ex nativitatis aut genituræ tempore (astrologorum more) signa capienda sint, nil magni de istis philosophiis significari videtur.

LXXIII.

Inter signa nullum magis certum aut nobile est, quam quod ex fructibus. Fructus enim et opera inventa, pro veritate philosophiarum velut sponsores et fidejussores sunt. Atque ex philosophiis istis Græcorum et derivationibus earum per partieulares scientias, jam per tot annorum spatia, vix unum experimentum adduci potest, quod ad hominum statum levandum et juvandum spectet, et philosophiæ speculationibus ac dogmatibus vere acceptum referri possit. Idque Celsus ingenue ac prudenter fatetur; nimirum, experimenta medicinæ primo inventa fuisse, ac postea homines circa ea philosophatos esse, et causas indagasse et assignasse: non ordine inverso evenisse, ut ex philosophia et causarum cognitione, ipsa experimenta inventa aut deprompta essent. Itaque mirum non erat, apud Ægyptios (qui rerum inventoribus divinitatem et consecrationem attribuerunt) plures fuisse brutorum animalium imagines, quam hominum: quia bruta animalia, per instinctus naturales, multa inventa pepererunt; ubi homines, ex sermonibus et conclusionibus rationalibus, pauca aut nulla exhibuerint.

At chemicorum industria nonnulla peperit; sed tanquam fortuito et obiter, aut per experimentorum quandam variationem (ut mechanici solent) non ex arte aut theoria aliqua; nam ea, quam confinxerunt, experimenta magis perturbat, quam juvat. Eorum etiam, qui in magia (quam vocant) naturali versati sunt, pauca reperiuntur inventa; eaque levia, et imposturæ propiora. Quocirca, quemadmodum in religione cavetur, ut fides ex operibus monstretur; idem etiam ad philosophiam optime traducitur, ut ex fructibus indicetur, et vana habeatur quæ sterilis sit: idque eo magis, si loco fructuum uvæ et olivæ, prodneat disputationum et contentionum cardnos et spinas.

LXXIV.

Capienda etiam sunt signa ex incrementis et progressibus philosophiarum et scientiarum. Quæ enim in natura fundata sunt, crescunt et augentur: quæ autem in opinione, variantur, non augentur. Itaque si istæ doctrinæ plane instar plantæ a stirpibus suis revulsæ non essent, sed utero naturæ adhærerent, atque ab eadem alerentur, id minime eventurum fuisset, quod per annos bis mille jam fieri videmus: nempe, ut scientiæ suis hæreant vestigiis, et in eodem fere statu maneant, neque augmentum aliquod memorabile sumpserint; quin potius in primo auctore maxime floruerint, et deinceps declinaverint. In artibus autem mechanicis, quæ in natura et experientiæ luce fundatæ sunt, contra evenire videmus; quæ (quamdiu placent) veluti spiritu quodam repletæ, continuo vegetant et crescunt; primo rudes, deinde commodæ, postea excultæ, et perpetuo auctæ.

LXXV.

Etiam aliud signum capiendum est (si modo signi appellatio huic competat; cum potius testimonium sit, atque adeo testimoniorum omnium validissimum) hoc est, propria confessio auctorum, quos homines nunc sequuntur. Nam et illi, qui tanta fiducia de rebus pronunciant, tamen per intervalla eum ad se redeunt, ad querimonias de naturæ subtilitate, rerum obscuritate, humani ingenii infirmitate se convertunt. Hoc vero si simpliciter fieret, alios fortasse, qui sunt timidiores, ab ulteriori inquisitione deterrere; alios vero, qui sunt ingenio alacriori et magis fidenti, ad ulteriorem progressum acuere et incitare, possit. Verum non satis illis est, de se confiteri, sed quicquid sibi ipsis aut magistris suis incognitum, aut intactum fuerit, id extra terminos possibilis ponunt; et tanquam ex arte cognita aut facta impossibile pronuncient: summa superbia et invidia suorum inventorum infirmitatem, in naturæ ipsius calumniam et aliorum omnium desperationem verteutes. Hinc schola Academiæ novæ, quæ *acatalepsiam* ex professo tenuit, et homines ad sempiternas tenebras damnavit. Hinc opinio, quod formæ sive variæ rerum differentiæ (quæ reveræ sunt leges actus puri) inventu impossibiles sint, et ultra hominem. Hinc opiniones illæ in active et operative parte; calorem solis et ignis toto genere differre; ne scilicet homines putent se, per opera ignis, aliquid simile iis, quæ in natura fiunt, educere et formare posse. Hinc illud: compositionem tantum opus hominis, mistionem vero opus solius naturæ esse; ne scilicet homines sperent aliquam ex arte corporum naturalium generationem, aut transformationem. Itaque ex hoc signo homines sibi persuaderi facile patientur, ne cum dogmatibus non solum desperatis, sed etiam desperationi devotis, fortunas suas et labores misceant.

LXXVI.

Neque illud signum prætermittendum est, quod tanta fuerit inter philosophos olim dissensio, et scholarum ipsarum varietas: quod satis ostendit, viam a

sensu ad intellectum non bene munitam fuisse, cum eadem materia philosophiæ (natura scilicet rerum) in tam vagos et multiplices errores abrepta fueret et distracta. Atque licet hisce temporibus dissensiones et dogmatum diversitates circa principia ipsa, et philosophias integras, ut plurimum extinctæ sint; tamen circa partes philosophiæ, innumeræ manent quæstiones et controversiæ; ut plane appareat, neque in philosophiis ipsis, neque in modis demonstrationum aliquid certi aut sani esse.

LXXVII.

Quod vero putant homines, in philosophia Aristotelis magnum utique consensum esse; cum post illam editam, antiquorum philosophiæ cessaverint et exolcverent; ast apud tempora, quæ secuta sunt, nil melius inventum fuerit; adeo ut illa tam bene posita et fundata videatur, ut utrumque tempus ad se traxerit: primo, quod de cessatione antiquarum philosophiarum post Aristotelis opera edita homines cogitant, id falsum est; diu enim postea, usque ad tempore Ciceronis, et secula sequentia, manserunt opera veterum philosophorum. Sed temporibus insequentibus, ex inundatione Barbarorum in imperium Romanum, postquam doctrina humana velut naufragium perpessa esset; tum demum philosophiæ Aristotelis et Platonis, tanquam tabulæ ex materia leviore et minus solida, per fluctus temporum servatæ sunt. Illud etiam de concensu fallit homines, si acutius rem introspiciant. Verus enim consensus is est, qui ex libertate judicii (re prius explorata) in idem conveniente consistit. At numerus longe maximus eorum, qui in Aristotelis philosophiam consenserunt, ex præjudicio et auctoritate aliorum se illi mancipavit: ut sequacitas sit potius et coitio, quam consensus. Quod si fuisset ille verus consensus et late patens, tantum abest, ut consensus pro vera et solida auctoritate haberi debeat, ut etiam violentam præsumptionem inducat in contrarium. Pessimum enim omnium est augurium, quod ex consensu capitur in rebus intellectualibus: exceptis divinis et politicis, in quibus suffragiorum jus est. Nihil enim multis placet, nisi imaginationem feriat, aut intellectum vulgarium notionum nodis astringat, ut supra dictum est. Itaque optime traducitur illud Phocionis a moribus ad intellectualia; "Ut statim se examinare debeant homines, quid erraverint aut peccaverint; si multitudo consentiat et complaudat." Hoc signum igitur ex aversissimis est. Itaque quod signa veritatis et sanitatis philosophiarum et scientiarum, quæ in usu sunt, male se habeant; sive capiantur ex originibus ipsarum, sive ex fructibus, sive ex progressibus, sive ex confessionibus auctorum, sive ex consensu; jam dictum est.

LXXVIII.

Jam vero veniendum ad causas errorum, et tam diuturnæ in illis per tot secula moræ; quæ plurimæ sunt et potentissimæ: ut tollatur omnis admiratio, hæc, quæ adducimus, homines hucusque latuisse et fugisse; et mancat tantum admiratio, illa nunc tandem alicui mortalium in mentem venire potuisse, aut cogitationem cujuspiam subiisse; quod etiam (ut nos existimamus) felicitatis magis est cujusdam, quam excellentis alicujus facultatis; ut potius pro temporis partu haberi debeat, quam pro partu ingenii.

Primo autem tot seculorum numerus, vere rem reputanti, ad magnas angustias recidit: nam ex viginti quinque annorum centuriis, in quibus memoria et doctrina hominum fere versatur, vix sex centuriæ seponi et excerpi possunt, quæ scientiarum feraces, earumve proventui utiles fuerunt. Sunt enim non minus temporum quam regionum eremi et vastitates. Tres enim tantum doctrinarum revolutiones et periodi recte numerari possunt: una, apud Græcos; altera, apud Romanos; ultima, apud nos, occidentales scilicet Europæ nationes: quibus singulis vix duæ centuriæ annorum merito attribui possunt. Media mundi tempora, quoad scientiarum segetem uberem aut lætam, infelicia fuerunt. Neque enim causa est ut vel Arabum vel scholasticorum mentio fiat: qui per intermedia tempora scientias potius contriverunt numerosis tractatibus, quam pondus earum auxerunt. Itaque prima causa tam pusilli in scientias profectus, ad angustias temporis erga illas propitii rite et ordine refertur.

LXXIX.

At secundo loco se offert causa illa magni certe per omnia momenti: ea videlicet quod per illas ipsas ætates, quibus hominum ingenia et literæ maxime vel etiam mediocriter floruerint, naturalis philosophia minimam partem humanæ operæ sortita sit. Atque hæc ipsa nihilominus pro magna scientiarum matre haberi debet. Omnes enim artes et scientiæ, ab hac stirpe revulsæ, poliuntur fortasse, et in usum effinguntur; sed nil admodum crescunt. At manifestum est, postquam Christiana fides recepta fuisset et adolevisset, longe maximam ingeniorum præstantissimorum partem ad theologiam se contulisse, atque huic rei et amplissima præmia proposita, et omnis generis adjumenta copiosissime subministrata fuisse: atque hoc theologiæ studium præcipue occupasse tertiam illam partem sive periodum temporis apud nos Europæos occidentales; eo magis, quod sub idem fere tempus et literæ florere, et controversiæ circa religionem pullulare, cœperint. At ævo superiori, durante periodo illa secunda, apud Romanos, potissimæ philosophorum meditationes et industria in morali philosophia (quæ ethnicis vice theologiæ erat) occupatæ et consumptæ fuerunt: etiam summa ingenia illis temporibus ut plurimum ad res civiles se applicuerunt, propter magnitudinem imperii Romani, quod plurimorum hominum opera indigebat. At illa ætas, qua naturalis philosophia apud Græcos maxime florere visa est, particula fuit temporis minime diuturna; cum et antiquioribus temporibus septem illi, qui Sapientes nominabantur, omnes (præter Thaletem) ad moralem philosophiam et civilia se applicuerint; et posterioribus temporibus, postquam Socrates philosophiam de cœlo in terras deduxisset, adhuc magis invaluerit moralis philosophia, et ingenia hominum a naturali averterit.

At ipsissima illa periodus temporis, in qua inquisitiones de natura viguerunt, contradictionibus et novorum placitorum ambitione corrupta est, et inutiles reddita. Itaque quandoquidem per tres istas

periodos naturalis philosophia majorem in modum negleeta aut impedita fuerit, nil mirum si homines parum in ea re profecerint, eum omnino aliud egerint.

LXXX.

Accedit et illud, quod naturalis philosophia in iis ipsis viris, qui ei incubuerint, vscantem et integrum hominem, præsertim his recentioribus temporibus, vix nacta sit; nisi forte quis monachi alicujus in cellula, aut nobilis in villula lucubrantis, exemplum addnxerit; sed facta est demum naturalis philosophia instar transitus cujusdam et pontisternii ad alia.

Atque magna ista scientiarum mater mira indignitate ad officia ancillæ detrusa est; quæ medicinæ aut mathematicos operibus ministret, et rursus, quæ adolescentium immatura ingenia lavet et imbuat velut tinctura quadam prima, ut aliam postea felicius et commodius excipiant. Interim nemo expeetet magnum progressum in scientiis (præsertim in parte earum operativa) nisi philosophia naturalis ad scientias partienlares prodneta fuerit, et scientiæ particulares rursus ad naturalem philosophiam reduetæ. Hinc enim fit, nt astronomia, optica, musica, plurimæ artes mechanicæ, atque ipsa medicina, atque (quod quis magis miretnr) philosophia moralis et civilis, et scientiæ logicæ nil fere habeant altitudinis in profundo; sed per superficiem et varietatem rerum tantum labantur: quia, postquam particulares istæ scientiæ dispertitæ et constitutæ fnerint, a philosophia naturali non amplius aluntur; qnæ ex fontibus et veris contemplationibus, motunm, radiorum, sonorum, texturæ et schematismi corporum, affectuum, et prehensionum intellectualium, novas vires et angmenta illis impertiri potuerit. Itaque minime mirum est, si scientiæ non crescant, eum a radicibus suis sint aeparatæ.

LXXXI.

Rursus se ostendit alia causa potens et magna, eur seientiæ parum promoverint. Ea vero hæc est; quod fieri non possit, ut recte procedatur in curriculo, ubi ipsa meta non recte posita sit et defixa. Meta autem scientiarum vera et legitima non alia est quam nt dotetur vita humana novis inventis et eopiis. At turba longe maxima nihil ex hoc sapit, sed meritoria plane est, et professoria; nisi forte quandoque eveniat, ut artifex aliquis acrioris ingenii, et gloriæ eupidus, novo alicui invento det operam; quod fere fit cum facultatum dispendio. At apud plerosque tantum abest ut homines id sibi proponant, ut scientiarum et artium massa augmentum obtineat; ut ex ea, quæ præsto est, massa nil amplins sumant aut quærant, quam quantum ad usum professorium, aut luerum, aut existimationem, aut hujusmodi eompendia convertere possint. Quod si quis ex tanta multitudine scientiam affeetu ingenuo, et propter se expetat; invenietur tamen ille ipse, potius contemplationum et doctrinarum varietatem, quam veritatis severam et rigidam inquisitionem, sequi. Rursus, si alins quispiam fortasse veritatis inquisitor sit severior; tamen et ille ipse talem sibi proponet veritatis conditionem, quæ menti et intellectui satisfaciat in redditione causarum rerum quæ jampridem sunt cognitæ; non eam, qnæ nova operum pignora, et novam axiomatum lueem assequatur. Itaque, si finis scientiarum a nemine adhuc bene positus sit, non mirum est, si in iis, quæ sunt subordinata ad finem, sequatur aberratio.

LXXXII.

Quemadmodum autem finis et meta scientiarum male posita sunt apnd homines; ita rursus etiam si illa recte posita fuissent, viam tamen sibi delegerunt omnino erroneam et imperviam. Quod stupore quodam animum rite rem reputanti perculserit; non ulli mortalium curæ aut cordi fuisse, nt intellectui humano, ab ipso sensu et experientia ordinata et bene condita, via aperiretur, et muniretur; sed omnia vel traditionum caligini, vel argumentorum vertigini et turbini, vel easus et experientiæ vagæ et inconditæ undis et ambagibus, permissa esse. Atqne cogitet quis sobrie et diligenter, qualis sit ea via, quam in inquisitione et inventione alicujna rei homines adhibere eonsueverunt. Et primo notabit proculdubio inveniendi modum simplicem et inartificiosum, qui hominibus maxime est familiaris. Hic autem non alius est, qnam ut is, qui se ad inveniendum aliquid comparat et accingit, primo quæ ab aliis circa illa dicta sint, inquirat et evolvat; deinde propriam meditationem addat, atque per mentis multam agitationem spiritum sunm proprium solieitet, et quasi invocet, ut sibi oracula pandat; quæ res omnino sine fundamento est, et in opinionibus tantum volvitur.

At slius quispiam dialectieam ad inveniendum advocet, quæ nomine tenus tantum sd id quod agitur, pertinet. Inventio enim dialectieæ non est prineipiorum et axiomatum præcipnorum, ex qnibus artes constant, sed eorum tantum, qnæ illis consentanea videntnr. Dialectica enim magis curiosos et importunos, et sibi negotium facessentes, eamqne interpellantes de probationibus et inventionibus principiorum, sive axiomatum primorum, ad fidem, et veluti sacramentnm cnilibet arti præstandum, notissimo responso rejicit.

Restat experientia mera, quæ, si occurrat, casus; si quæsita sit, experimentum nominatur. Hoc autem experientiæ genus nihil aliud est, quam (quod aiunt) scopæ dissolutæ, et mera palpatio, quali homines noctu utnntur, omnia pertentando, si forte in rectam viam ineidere detur; quibus multo satius et consultius foret diem præstolari, aut lumen accendere, et deinde viam inire. At eontra, verus experientiæ ordo primo lumen accendit, deinde per lumen iter demonstrat, incipiendo ab experientia ordinata et digesta, et minime præpostera aut erratica, atque ex ea edueendo axiomata, atque ex axiomatibus constitutis rursus experimenta nova, enm nec verbum divinum in rerum massam absque ordine operatum sit.

Itaque desinant homines mirari, si spatium scientiarum non confeetum sit, eum a via omnino aberraverint; relicta prorsus et deserta experientia, aut in ipsa (tanquam in labyrintho) se intrieando et circumcursando; enm rite institutus ordo, per experientiæ sylvas, ad aperta axiomatum tramite constanti dueat.

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LXXXIII.

Excrevit autem nirum in modum istud malum ex opinione quadam, sive æstimatione inveterata, verum tumida et damnosa; minui nempe mentis humanæ majestatem, si experimentis, et rebus particularibus sensui subjectis, et in materia determinatis, diu ac multum versetur; præsertim cum hujusmodi res ad inquirendum laboriosæ, ad meditandum ignobiles, ad dicendum asperæ, ad practicam illiberales; numero infinitæ, et subtilitate tenues, esse soleant. Itaque jam tandem huc res rediit, ut via vera non tantum deserta, sed etiam interclusa et obstructa sit; fastidita experientia, nedum relicta, aut male administrata.

LXXXIV.

Rursus vero homines a progressu in scientiis detinuit, et fere incantavit reverentia antiquitatis, et virorum, qui in philosophia magni habiti sunt, auctoritas, atque deinde consensus. Atque de consensu superius dictum est.

De antiquitate autem opinio, quam homines de ipsa fovent, negligens omnino est, et vix verbo ipsi congrua. Mundi enim senium et grandævitas pro antiquitate vere habenda sunt; quæ temporibus nostris tribui debent, non juniori ætati mundi, qualis apud antiquos fuit. Illa enim ætas, respectu nostri, antiqua et major; respectu mundi ipsius, nova et minor fuit. Atque revera quemadmodum majorem rerum humanarum notitiam, et maturius judicium, ab homine sene expectamus, quam a juvene, propter experientiam, et rerum, quas vidit, et audivit, et cogitavit, varietatem et copiam; eodem modo et a nostra ætate (si vires suas nosset, et experiri et intendere vellet) majora multo quam a priscis temporibus expectari par est; utpote ætate mundi grandiore, et infinitis experimentis et observationibus aucta et cumulata.

Neque pro nihilo æstimandum, quod per longinquas navigationes et peregrinationes (quæ seculis nostris increbuerunt) plurima in natura patuerint, et reperta sint, quæ novam philosophiæ lucem immittere possint. Quin et turpe hominibus foret, si globi materialis tractus, terrarum videlicet, marium, astrorum, nostris temporibus immensum aperti et illustrati sint; globi autem intellectualis fines inter veterum inventa et angustias cohibeantur.

Auctores vero quod attinet, summæ pusillanimitatis est auctoribus infinita tribuere, auctori autem auctorum, atque adeo omnis auctoritatis, Tempori, jus suum denegare. Recte enim Veritas Temporis filia dicitur, non auctoritatis. Itaque mirum non est, si fascina ista antiquitatis, et auctorum, et consensus, hominum virtutem ita ligaverint, ut cum rebus ipsis consuescere (tanquam maleficiati) non potuerint.

LXXXV.

Neque solum admiratio antiquitatis, auctoritatis, et consensus, hominum industriam in iis, quæ jam inventa sunt, acquiescere compulit; verum etiam operum ipsorum admiratio, quorum copia jampridem facta est humano generi. Etenim cum quis rerum varietatem, et pulcherrimum apparatum, qui per artes mechanicas ad cultum humanum congestus et introductus est, oculis subjecerit, eo certe inclinabit, ut potius ad opulentiæ humanæ admirationem, quam ad inopiæ sensum, accedat; minime advertens primitivas hominis observationes, atque naturæ operationes (quæ ad omnem illam varietatem instar animæ sunt, et primi motus) nec multas, nec alte petitas esse; cætera ad patientiam hominum tantum, et subtilem et ordinatum manus vel instrumentorum motum, pertinere. Res enim (exempli gratia) subtilis est certe et accurata, confectio horologiorum, talis scilicet, quæ cœlestia in rotis, pulsum animalium in motu successivo et ordinato, videatur imitari; quæ tamen res ex uno aut altero naturæ axiomate pendet.

Quod si quis rursus subtilitatem illam intueatur, quæ ad artes liberales pertinet; aut etiam eam, quæ ad corporum naturalium præparationem per artes mechanicas spectat, et hujusmodi res suspiciat; veluti inventionem motuum cœlestium in astronomia, consentuum in musica, literarum alphabeti (quæ etiam adhuc in regno Sinarum in usu non sunt) in grammatica; aut rursus in mechanicis, factorum Bacchi et Cereris, hoc est, præparationem vini et cervisiæ, panificiorum, aut etiam mensæ delictarum, et distillationum, et similium; ille quoque si secum cogitet et animum advertat, per quantos temporum circuitus (cum hæc omnia præter distillationes antiqua fuerint) hæc ad eam, quam nunc habemus culturam perducta sint, et (ut jam de horologiis dictum est) quam parum habeant ex observationibus et axiomatibus naturæ, atque quam facile, et tanquam per occasiones obvias, et contemplationes incurrentes, ista inveniri potuerint: ille (inquam) ab omni admiratione se facile liberabit, et potius humanæ conditionis miserebitur, quod per tot secula, tanta fuerit rerum et inventorum penuria et sterilitas. Atque hæc ipsa tamen, quorum nunc mentionem fecimus, inventa, philosophia et artibus intellectus antiquiora fuerunt; adeo ut (si verum dicendum sit) cum hujusmodi scientiæ rationales et dogmaticæ inceperint, inventio operum utilium desierit.

Quod si quis ab officinis ad bibliothecas se converterit, et immensam, quam videmus, librorum varietatem in admiratione habuerit, is, examinatis et diligentius introspectis ipsorum librorum materiis et contentis, obstupescet certe in contrarium; et postquam nullum dari finem repetitionibus observaverit, quamque homines eadem agant et loquantur, ab admiratione varietatis transibit ad miraculum indigentiæ et paucitatis earum rerum, quæ hominum mentes adhuc tenuerunt et occuparunt.

Quod si quis ad intuendum ea, quæ magis curiosa habentur quam sana, animum submiserit, et alchemistarum aut magorum opera penitus introspexerit, is dubitabit forsitan, utrum risu, an lacrymis potius, illa digna sint. Alchemista enim spem alit æternam, atque ubi res non succedit, errores propriosreos substituit; secum accusatorie reputando, se aut artis aut auctorum vocabula non satis intellexisse; unde ad traditiones et auriculares susurros animum applicat; aut in practicæ suæ scrupulis et momentis aliquid titubatum esse; unde experimenta in infinitum repetit: ac interim cum inter experimentorum

sortes in quædam incidat, aut ipsa facie nova, aut utilitate non contemnenda, hujusmodi pignoribus animum paseit, eaque in majus ostentat et celebrat; reliqua spe sustentat. Neque tamen negandum est, alchemistas non pauca invenisse, et inventis utilibus homines donasse. Verum fabula illa non male in illos quadrat de sene, qui filiis aurum in vinea defossum (sed loeum se neseire simulans) legaverit; unde illi vincæ fodiendæ diligenter incubuerunt, et aurum quidem nullum repertum; sed vindemia ex ea cultura facta est uberior.

At naturalis magiæ cultores, qui per rerum sympathias et antipathias omnia expediunt, ex conjecturis otiosis et supinissimis, rebus virtutes et operationes admirabiles affinxerunt; atque si quando opera exhibuerint, ea illius sunt generis, ut ad admirationem et novitatem, non ad fructum et utilitatem accommodata sint.

In superstitiosa autem magia (si et de hac dicendum sit) illud imprimis animadvertendum est, esse tantummodo certi cujusdam et definiti generis subjecta, in quibus artes curiosæ et superstitiosæ, per omnes nationes atque ætates, atque etiam religiones, aliquid potuerint aut luscrint. Itaque ista missa faciamus. Interim nil mirum est, si opinio eopiæ causam inopiæ dederit.

LXXXVI.

Atque hominum admirationi quoad doctrinas et artes, per se satis simplici et prope puerili, incrementum accessit ab eorum astu et artificio, qui scientias tractaverunt et tradiderunt. Illi enim ea ambitione et affeetatione eas proponunt, atque in eum modum efformatas, ac veluti personatas, in hominum conspeetum producunt, ac si illæ omni ex parte perfectæ essent, et ad exitum perductæ. Si enim methodum aspieias et partitiones, illæ prorsus omnia complecti et concludere videntur, quæ in illud subjectum eadere possunt. Atque licet membra illa male impleta, et veluti eapsulæ inanes sint; tamen apud intellectum vulgarem scientiæ formam et rationem integræ præ se ferunt.

At primi et antiquissimi veritatis inquisitores, meliore fide et fato, cognitionem illam, quam ex rerum eontemplatione decerpere, et in usum recondere statuebant, in *aphorismos*, sive breves, easdemque sparsas, nec methodo revinctas sententias, conjicere solebant; neque se artem universam complecti simulabant aut profitebantur. At eo, quo nunc res agitur, modo, minime mirum est, si homines in iis ulteriora non quærant, quæ pro perfectis et numeris suis jampridem absolutis traduntur.

LXXXVII.

Etiam antiqua magnum existimationis et fidei inercmentum acceperunt, ex eorum vanitate et levitate, qui nova proposuerunt; præsertim in philosophiæ naturalis parte activa et operativa. Neque enim defucrunt homines vaniloqui et phantastici, qui partim ex credulitate, partim ex impostura, genus humanum promissis onerarunt: vitæ prolongationem, senectutis retardationem, dolorum levationem, naturalium defeetuum reparationem, sensuum deceptiones, affectuum ligationes et incitationes, intellcctualium facultatum illuminationes et exaltationes, substantiarum transmutationes, et motuum ad libitum roborationes et multiplicationes, aëris impressiones et alterationes, cœlestium influentiarum deductiones et procurationes, rerum futurarum divinationes, remotarum repræsentationes, occultarum revelationes, et alia complura pollicitando et ostentando. Verum de istis largitoribus non multum aberraverit, qui istiusmodi judicium feecrit, tantum nimirum in doctrinis philosophiæ, inter horum vanitates, et veras artes, interesse, quantum inter res gestas Julii Cæsaris, aut Alexandri Magni, et res gestas Amadicii ex Gallia, aut Arthuri ex Britannia, in historiæ narrationibus intersit. Inveniuntur enim clarissimi illi imperatores revera majora gessisse, quam umbratiles isti heroës etiam fecisse fingantur; sed modis et viis scilicet actionum minime fabulosis et prodigiosis. Neque propterea æquum est veræ memoriæ fidem derogari, quod a fabulis illa quandoque læsa sit et violata. Sed interim minime mirum est, si propositionibus novis (præscrtim cum mentione operum) magnum sit factum præjudicium per istos impostores, qui similia tentaverunt; cum vanitatis excessus et fastidium etiam nunc omnem in cjusmodi conatibus magnanimitatem destruxerit.

LXXXVIII.

At longe majora a pusillanimitate, et pensorum, quæ humana industria sibi proposuit, parvitate et tenuitate, detrimenta in scientias invecta sunt. Et tamen (quod pessimum est) pusillanimitas ista non sine arrogantia et fastidio se offert.

Primum enim, omnium artium illa reperitur cautela jam facta familiaris, ut in qualibet arte auctores artis suæ infirmitatem in naturæ calumniam vertant; et quod ars ipsorum non assequitur, id ex eadem arte impossibile in natura pronunciant. Neque certe damnari potest ars, si ipsa judicet. Etiam philosophia, quæ nunc in manibus est, in sinu suo posita quædam fovet, aut placita, quibus (si diligentius inquiratur) hoc hominibus omnino persuaderi volunt; nil ab arte, vel hominis opere, arduum, aut in naturam imperiosum et validum, expectari debere; ut de heterogenia caloris astri et ignis, et mistione, superius dictum est. Quæ si notentur accuratius, omnino pertinent ad humanæ potestatis circumscriptionem malitiosam, et ad quæsitam et artificiosam desperationem, quæ non solum spei auguria turbet, sed etiam omnes industriæ stimulos et nervos incidat, atque ipsius experientiæ aleas abjiciat; dum de hoc tantum soliciti sint, ut ars eorum perfecta eenscatur; gloriæ vanissimæ et perditissimæ dantes operam, scilicet ut quicquid adhuc inventum et comprehensum non sit, id omnino nec inveniri, nec comprehendi posse in futurum credatur. At si quis rebus addere se, et novum aliquod reperire conetur, ille tamen omnino sibi proponet et destinabit unum aliquod inventum (nec ultra) perscrutari et cruere; ut magnetis naturam, maris fluxum et refluxum, thema cœli, et hujusmodi, quæ secreti aliquid habere videntur, et hactenus parum feliciter tractata sint: cum summæ sit imperitiæ rei alicujus naturam in se ipsa perscrutari; quandoquidem eadem natura,

quæ in aliis videtur latens et occulta, in aliis manifesta sit, et quasi palpabilis; atque in illis admirationem, in his ne attentionem quidem moveat. Ut fit in natura consistentiæ, quæ in ligno vel lapide non notatur, sed solidi appellatione transmittitur, neque amplius de fuga separationis aut solutionis continuitatis inquiritur: at in aquarum bullis eadem res videtur subtilis et ingeniosa; quæ bullæ se conjiciunt in pelliculas quasdam, in hemisphærii formam curiose effictas, ut ad momentum temporis evitetur solutio continuitatis.

Atque prorsus illa ipsa, quæ habentur pro secretis, in aliis habent naturam manifestam et communem; quæ nusquam se dabit conspiciendam, si hominum experimenta aut contemplationes in illis ipsis tantum versentur. Generaliter autem et vulgo, in operibus mechanicis habentur pro novis inventis, si quis jampridem inventa subtilius poliat, vel ornet elegantius, vel simul uniat et componat, vel cum uso commodius copulet, aut opus majore, aut etiam minore, quam fieri consuevit, mole vel volumine exhibeat, et similia.

Itaque minime mirum est, si nobilia et genere humano digna inventa in lucem extracta non sint, cum homines hujusmodi exiguis pensis et puerilibus contenti et delectati fuerint; quinetiam in iisdem se magnum aliquod secutos aut assecutos putaverint.

LXXXIX.

Neque illud prætermittendum est, quod nacta sit philosophia naturalis per omnes ætates adversarium molestum et difficilem; superstitionem nimirum, et zelum religionis cæcum et immoderatum. Etenim videre est apud Græcos, eos, qui primum causas naturales fulminis et tempestatum insuetis adhuc hominum auribus proposuerunt, impietatis in deos eo nomine damnatos: nec multo melius a nonnullis antiquorum patrum religiosis Christianæ exceptos fuisse eos, qui ex certissimis demonstrationibus (quibus nemo hodie sanus contradixerit) terram rotundam esse posuerunt, atque ex consequenti antipodas esse asseruerunt.

Quinetiam, ut nunc sunt res, conditio sermonum de natura facta est durior et magis cum periculo, propter theologorum scholasticorum summas et methodos; qui cum theologiam (satis pro potestate) in ordinem redegerint, et in artis formam effinxerint, hoc insuper effecerunt, ut pugnax et spinosa Aristotelis philosophia corpori religionis, plus quam par erat, immisceretur.

Eodem etiam spectant (licet diverso modo) eorum commentationes, qui veritatem Christianæ religionis ex principiis et auctoritatibus philosophorum deducere et confirmare haud veriti sunt; fidei et sensus conjugium tanquam legitimum multa pompa et solennitate celebrantes, et grata rerum varietate animos hominum permulcentes; sed interim divina humanis impari conditione permiscentes. At in hujusmodi misturis theologiæ cum philosophia, ea tantum, quæ nunc in philosophia recepta sunt, comprehenduntur; sed nova, licet in melius mutata, tantum non commoventur et exterminantur.

Denique invenias ex quorundam theologorum imperitia aditum alicui philosophiæ, quamvis emendatæ, pene interclusum esse. Alii siquidem simplicius subverentur, ne forte altior in naturam inquisitio ultra concessum sobrietatis terminum penetret; traducentes et perperam torquentes ea, quæ, de divinis mysteriis in Scripturis sacris, adversus rimantes secreta divina dicuntur, ad occulta naturæ, quæ nullo interdicto prohibentur. Alii callidius conjiciunt et animo versant, si media ignorentur, singula ad manum et virgulam divinam (quod religionis, ut putant, maxime interest) facilius posse referri; quod nihil aliud est, quam "Deo per mendacium gratificari" velle. Alii ab exemplo metuunt, ne motus et mutationes circa philosophiam in religionem incurrant ac desinant. Alii denique solliciti videntur, ne in naturæ inquisitione aliquid inveniri possit, quod religionem (præsertim apud indoctos) subvertat, aut saltem labefactet. At isti duo posteriores metus nobis videntur omnino sapientiam animalem sapere; ac si homines in meatis suæ recessibus et secretis cogitationibus, de firmitudine religionis, et fidei in sensum imperio, diffiderent ac dubitarent; et propterea ab inquisitione veritatis in naturalibus periculum illis impendere metuerent. At vere rem reputanti, philosophia naturalis, post verbum Dei, certissima superstitionis medicina est; eademque probatissimum fidei alimentum. Itaque merito religioni donatur tanquam fidissima ancilla: cum altera voluntatem Dei, altera potestatem, manifestet. Neque enim erravit ille, qui dixit; "Erratis, nescientes Scripturas, et potestatem Dei:" informationem de voluntate, et meditationem de potestate, nexu individuo commiscens et copulans. Interim minus mirum est si naturalis philosophiæ incrementa cohibita sint; cum religio, quæ plurimum apud animos hominum pollet, per quorundam imperitiam et zelum incantum in partem contrariam transierit, et abrepta fuerit.

XC.

Rursus in moribus et institutis scholarum, academiarum, collegiorum, et similium conventuum, quæ doctorum hominum sedibus et eruditionis culturæ destinata sunt, omnia progressui scientiarum adversa inveniuntur. Lectiones enim et exercitia ita sunt disposita, ut aliud a consuetis haud facile cuiquam in mentem veniat cogitare aut contemplari. Si vero unus aut alter fortasse judicii libertate uti sustinuerit, is sibi soli hanc operam imponere possit; ab aliorum autem consortio nihil capiet utilitatis. Sin et hoc toleraverit, tamen in capessenda fortuna industriam hanc et magnanimitatem sibi non levi impedimento fore experietur. Studia enim hominum in ejusmodi locis in quorundam auctorum scripta, veluti in carceres, concluса sunt; a quibus si quis dissentiat, continuo ut homo turbidus, et rerum novarum cupidus, corripitur. At magnum certe discrimen inter res civiles et artes: non enim idem periculum a novo motu, et a nova luce. Verum in rebus civilibus mutatio etiam in melius suspecta est ob perturbationem; cum civilia auctoritate, consensu, fama et opinione, non demonstratione, nitantur. In artibus autem et scientiis, tanquam in metalli fodinis, omnia novis operibus et ulterioribus progressibus circumstrepere debent. Atque secundum rectam

rationem res ita se habet, sed interim non ita vivitur: sed ista, quam diximus, doctrinarum administratio et politia scientiarum augmenta durius premere consuevit.

XCI.

Atque insuper licet ista invidia cessaverit; tamen satis est ad cohibendum augmentum scientiarum, quod hujusmodi conatus et industriæ præmiis careant. Non enim penes eosdem est cultura scientiarum et præmium. Scientiarum enim augmenta a magnis utique ingeniis proveniunt; at pretia et præmia scientiarum sunt penes vulgus aut principes viros, qui (nisi raro admodum) vix mediocriter docti sunt. Quinetiam hujusmodi progressus, non solum præmiis et beneficientia hominum, verum etiam ipsa populari laude destituti sunt. Sunt enim illi supra captum maximæ partis hominum, et ab opinionum vulgarium ventis facile obruuntur et extinguuntur. Itaque nil mirum, si res illa non feliciter succeserit, quæ in honore non fuit.

XCII.

Sed longe maximum progressibus scientiarum, et novis pensis ac provinciis in iisdem suscipiendis, obstaculum deprehenditur in desperatione hominum et suppositione impossibilis. Solent enim viri prudentes et severi in hujusmodi rebus plane diffidere: naturæ obscuritatem, vitæ brevitatem, sensuum fallacias, judicii infirmitatem, experimentorum difficultates, et similia secum reputantes. Itaque existimant esse quosdam scientiarum, per temporum et ætatum mundi revolutiones, fluxus et refluxus; cum aliis temporibus crescant et floreant, aliis declinent et jaceant: ita tamen, ut cum ad certum quendam gradum et statum pervenerint, nil ulterius possint.

Itaque si quis majora credat aut spondeat, id putant esse cujusdam impotentis et immaturi animi; atque hujusmodi conatus, initia scilicet læta, media ardua, extrema confusa habere. Atque cum hujusmodi cogitationes eæ sint, quæ in viros graves et judicio præstantes facile cadant; curandum revera est, ne, rei optimæ et pulcherrimæ amore capti, severitatem judicii relaxemus aut minuamus; et sedulo videndum, quid spei affulgeat, et ex qua parte se ostendat; atque auris levioribus spei rejectis, eæ, quæ plus firmitudinis habere videntur, omnino discutiendæ sunt et pensitandæ. Quinetiam prudentia civilis ad consilium vocanda est et adhibenda, quæ ex præscripto diffidit, et de rebus humanis in deterius conjicit. Itaque jam et de spe dicendum est; præsertim cum nos promissores non simus, nec vim aut insidias hominum judiciis faciamus aut struamus, sed homines manu et sponte ducamus Atque licet longe potentissimum futurum sit remedium ad spem imprimendam, quando homines ad particularia, præsertim in tabulis nostris inveniendi digesta et disposita (quæ partim ad secundam, sed multo magis ad quartam *Instaurationis* nostræ partem pertinent) adducemus; cum hoc ipsum sit non spes tantum, sed tanquam res ipsa: tamen ut omnia elementius fiant, pergendum est in instituto nostro de præparandis hominum mentibus: cujus præparationis ista ostensio spei pars est non exigua. Nam absque ea, reliqua faciunt magis ad contristationem hominum (scilicet ut deteriorem et viliorem habeant de iis, quæ jam in usu sunt, opinionem, quam nunc habent; et suæ conditionis infortunium plus sentiant et pernoscant) quam ad alacritatem aliquam inducendam, aut industriam experiendi acuendam. Itaque conjecturæ nostræ, quæ spem in hac re faciunt probabilem, aperiendæ sunt et proponendæ; sicut Columbus fecit ante navigationem illam suam mirabilem maris Atlantici; cum rationes adduxerit, cur ipse novas terras et continentes, præter eas, quæ ante cognitæ fuerunt, inveniri posse confideret: quæ rationes licet primo rejectæ, postea tamen experimento probatæ sunt, et rerum maximarum causæ et initia fuerunt.

XCIII.

Principium autem sumendum a Deo: hoc nimirum quod agitur, propter excellentem in ipso boni naturam, manifeste a Deo esse; qui auctor boni et pater luminum est. In operationibus autem divinis initia quæque tenuissima exitum certo trahunt. Atque quod de spiritualibus dictum est, "Regnum Dei non venit cum observatione;" id etiam in omni majore opere providentiæ divinæ evenire reperitur: ut omnia sine strepitu et sonitu placide labantur; atque res plane agatur, priusquam homines eam agi putent aut advertant. Neque omittenda est prophetia Danielis de ultimis mundi temporibus; "Multi pertransibunt, et multiplex erit scientia;" manifeste innuens et significans esse in fatis, id est, in providentia, ut pertransitus mundi (qui per tot longinquas navigationes impletus plane, aut jam in opere esse videtur) et augmenta scientiarum in eandem ætatem incidant.

XCIV.

Sequitur ratio omnium maxima ad faciendam spem; nempe ex erroribus temporis præteriti, et viarum adhuc tentatarum. Optima enim est ea reprehensio, quam de statu civili, haud prudenter administrato, quispiam his verbis complexus est: "Quod ad præterita pessimum est, id ad futura optimum videri debet. Si enim vos omnia, quæ ad officium vestrum spectant, præstitissetis; neque tamen res vestræ in meliore loco essent; ne spes quidem ulla reliqua foret, eas in melius provehi posse. Sed cum rerum vestrarum status, non a vi ipsa rerum, sed ab erroribus vestris male se habeat; sperandum est, illis erroribus missis aut correctis, magnam rerum in melius mutationem fieri posse." Simili modo, si homines per tanta annorum spatia viam veram inveniendi et colendi scientias tenuissent, nec tamen ulterius progredi potuissent, audax proculdubio et temeraria foret opinio, posse rem in ulterius provehi. Quod si in via ipsa erratum sit, atque hominum opera in iis consumpta, in quibus minime oportebat; sequitur ex eo, non in rebus ipsis difficultatem oriri, quæ potestatis nostræ non sunt; sed in intellectu humano, ejusque usu et applicatione: quæ res remedium et medicinam suscipit. Itaque optimum fuerit illos ipsos errores proponere: quot enim fuerint errorum impedimenta in præterito, tot sunt spei argumenta in futurum. Ea vero licet in his quæ superius dicta sunt, non intneta omnino fue-

rint; tamen ea etiam nunc breviter verbis nudis ac simplicibus repræsentare visum est.

XCV.

Qui tractaverunt scientias, aut empirici, aut dogmatici fuerunt. Empirici, formicæ more, congerunt tantum et utuntur: rationales, aranearum more, telas ex se conficiunt: apis vero ratio media est, quæ materiam ex floribus horti et agri elicit; sed tamen eam propria facultate vertit et digerit. Neque absimile philosophiæ verum opificium est; quod nec mentis viribus tantum aut præcipue nititur, neque ex historia naturali et mechanicis experimentis præbitam materiam, in memoria integram, sed in intellectu mutatam et subactam reponit. Itaque ex harum facultatum (experimentalis scilicet et rationalis) arctiore et sanctiore fœdere (quod adhuc factum non est) bene sperandum est.

XCVI.

Naturalis philosophia adhuc sincera non invenitur, sed infecta et corrupta: in Aristotelis schola per logicam; in Platonis schola per theologiam naturalem; in secunda schola Platonia, Procli, et aliorum, per mathematicam; quæ philosophiam naturalem terminare, non generare aut procreare debet. At ex philosophia naturali pura et impermista meliora speranda sunt.

XCVII.

Nemo adhuc tanta mentis constantia et rigore inventus est, ut decreverit et sibi imposuerit theorias et notiones communes penitus abolere, et intellectum abrasum et æquum ad particularia de integro applicare. Itaque ratio illa humana, quam habemus, ex multa fide, et multo etiam casu, nec non ex puerilibus, quas primo hausimus, notionibus, farrago quædam est et congeries.

Quod si quis ætate matura, et sensibus integris, et mente repurgata, se ad experientiam et ad particularia de integro applicet, de eo melius sperandum est. Atque hæc in parte nobis spondemus fortunam Alexandri Magni: neque quis nos vanitatis arguat, antequam exitum rei audiat, quæ ad exuendam omnem vanitatem spectat.

Etenim de Alexandro et ejus rebus gestis Æschines ita loquutus est: "Nos certe vitam mortalem non vivimus; sed in hoc nati sumus, ut posteritas de nobis portenta narret et prædicet:" perinde ac si Alexandri res gestas pro miraculo habuisset.

At ævis sequentibus Titus Livius melius rem advertit et intuitus est, atque de Alexandro hujusmodi quippiam dixit, "Eum non aliud quam hoc ausum vana contemnere." Atque simile etiam de nobis judicium futuris temporibus factum iri existimamus: "Nos nil magni fecisse, sed tantum ea, quæ pro magnis habentur, minoris fecisse." Sed interim (quod jam diximus) non est spes nisi in *regeneratione* scientiarum; ut eæ scilicet ab experientia certo ordine excitentur et rursus condantur: quod adhuc factum esse aut cogitatum, nemo (ut arbitramur) affirmaverit.

XCVIII.

Atque experientiæ fundamenta (quando ad hanc omnino deveniendum est) aut nulla, aut admodum infirma adhuc fuerunt; nec particularium sylva et materies, vel numero, vel genere, vel certitudine, informando intellectui competens, aut ullo modo sufficiens, adhuc quæsita est et congesta. Sed contra homines docti (supini sane et faciles) rumores quosdam experientiæ, et quasi famas et auras ejus, ad philosophiam suam vel constituendam vel confirmandam exceperunt, atque illis nihilominus pondus legitimi testimonii attribuerunt. Ac veluti si regnum aliquod aut status non ex literis et relationibus a legatis et nuntiis fide dignis missis, sed ex urbanorum sermunculis et ex triviis consilia sua et negotia gubernaret; omnino talis in philosophiam administratio, quatenus ad experientiam, introducta est. Nil debita modis exquisitum, nil verificatum, nil numeratum, nil appensum, nil dimensum in naturali historia reperitur. At quod in observatione indefinitum et vagum, id in informatione fallax et infidum est. Quod si cui hæc mira dicta videantur, et querelæ minus justæ propiora; cum Aristoteles tantus ipse vir, et tanti regis opibus subnixus, tam accuratam de animalibus historiam confecerit; atque alii nonnulli majore diligentia (licet strepitu minore) multa adjecerint; et rursus alii de plantis, de metallis et fossilibus, historias et narrationes copiosas conscripserint; is sane non satis attendere et perspicere videtur, quid agatur in præsentia. Alia enim est ratio naturalis historiæ, quæ propter se confecta est; alia ejus, quæ collecta est ad informandum intellectum in ordine ad condendam philosophiam. Atque hæ duæ historiæ tum aliis rebus, tum præcipue in hoc differunt; quod prima ex illis speciebus naturalium varietatem, non artium mechanicarum experimenta, contineat. Quemadmodum enim in civilibus ingenium cujusque et occultus animi affectuumque sensus melius elicitur, cum quis in perturbatione ponitur, quam alias: simili modo, et occulta naturæ magis se produnt per vexationes artium, quam cum curso suo meant. Itaque tum demum bene sperandum est de naturali philosophia, postquam historia naturalis (quæ ejus basis est et fundamentum) melius instructa fuerit: ante a vero minime.

XCIX.

Atque rursus in ipsa experimentorum mechanicorum copia, summa eorum, quæ ad intellectus informationem maxime faciunt et juvant, detegitur inopia. Mechanicus enim, de veritatis inquisitione nullo modo solicitus, non ad alia, quam quæ operi suo subserviunt, aut animum erigit, aut manum porrigit. Tum vero de scientiarum ulteriore progressu spes bene fundabitur, cum in historiam naturalem recipientur et aggregabuntur complura experimenta, quæ in se nullius sunt usus, sed ad inventionem causarum et axiomatum tantum faciunt; quæ nos *lucifera* experimenta, ad differentiam *fructiferorum*, appellare consuevimus. Illa autem miram habent in se virtutem et conditionem; hanc videlicet, quod nunquam fallant, aut frustrentur. Cum enim ad hoc adhibeantur, non ut opus aliquod efficiant, sed ut causam naturalem in aliquo revelent, quaquaversum eadunt, intentioni æque satisfaciunt, cum quæstionem terminent.

C.

At non solum copia major experimentorum quærenda est, et procurauda, atque etiam alterius generis, quam adhuc factum est; sed etiam methodus plane alia, et ordo, et processus, continuandæ et provehendæ experientiæ, introducenda. Vaga enim experientia, et se tantum sequens (ut superius dictum est) mera palpatio est, et homines potius stupefacit, quam informat. At cum experientia lege certe procedet, seriatim et continenter, de scientiis aliquid melius sperari poterit.

CI.

Postquam vero copia et materies historiæ naturalis et experientiæ talis, qualis ad opus intellectus sive ad opus philosophicum requiritur, præsto jam sit et parata; tamen nullo modo sufficit intellectus, ut in illam materiam agat sponte et memoriter; non magis quam si quis computationem alicujus ephemeridis memoriter se tenere, et superare posse speret. Atque hactenus tamen potiores meditationis partes, quam scriptionis, in inveniendo fuerunt; neque ad hue experientia literata facta est: atqui nulla nisi de scripto inventio probanda est. Illa vero in usum veniente, ab experientia, facta demum literata, melius sperandum.

CII.

Atque insuper, cum tantus sit particularium numerus, et quasi exercitus, isque ita sparsus et diffusus, ut intellectum disgreget et confundat; de velitationibus, et levibus motibus, et transcursibus intellectus, non bene sperandum est; nisi fiat instructio et coordinatio per tabulas inveniendi idoneas, et bene dispositas, et tanquam vivas, eorum quæ pertinent ad subjectum, in quo versatur inquisitio, atque ad harum tabularum auxilia præparata et digesta mens applicetur.

CIII.

Verum post copiam particularium, rite et ordine veluti sub oculos positorum, non statim transeundum est ad inquisitionem, et inventionem novorum particularium aut operum; aut saltem, si hoc fiat, in eo non acquiescendum. Neque enim negamus, postquam omnia omnium artium experimenta collecta et digesta fuerint, atque ad unius hominis notitiam et judicium pervenerint; quin ex ipsa traductione experimentorum unius artis in alias, multa nova inveniri possint, ad humanam vitam et statum utilia, per istam experientiam quam vocamus literatam: sed tamen minora de ea speranda sunt; majora vero a nova hac axiomatum, ex particularibus illis certa via et regula eductorum, quæ rursus nova particularia indicent et designent. Neque enim in plano via sita est, sed ascendendo et descendendo; ascendendo primo ad axiomata, descendendo ad opera.

CIV.

Neque tamen permittendum est, ut intellectus a particularibus ad axiomata remota et quasi generalissima (qualia sunt principia, quæ vocant, artium et rerum) saliat et volet; et ad eorum immotam veritatem axiomata media probet et expediat: quod adhuc factum est, prono ad hoc impetu naturali intellectus, atque etiam ad hoc ipsum per demonstrationes, quæ fiunt per syllogismum, jam pridem edocto et assuefacto. Sed de scientiis tum demum bene sperandum est, quando per scalam veram et per gradus continuos, et non intermissos, aut hiulcos, a particularibus ascendetur ad axiomata minora, et deinde ad media, alia aliis superiora, et postremo demum ad generalissima. Etenim axiomata infirma non multum ab experientia nuda discrepant. Suprema vero illa et generalissima (quæ habentur) notionalia sunt, et abstracta, et nil habent solidi. At media sunt axiomata illa vera, et solida, et viva, in quibus humanæ res et fortunæ sitæ sunt; et supra hæc quoque tandem ipsa illa generalissima; talia scilicet, quæ non abstracta sint, sed per hæc media vere limitantur.

Itaque hominum intellectui non plumæ addendæ, sed plumbum potius et pondera; ut cohibeant omnem saltum et volatum. Atque hoc adhuc factum non est; cum vero factum fuerit, melius de scientiis sperare licebit.

CV.

In constituendo autem axiomate, forma *inductionis* alia, quam adhuc in usu fuit, excogitanda est; eaque non ad principia tantum (quæ vocant) probanda et invenienda, sed etiam ad axiomata minora, et media, denique omnia. Inductio enim, quæ procedit per enumerationem simplicem, res puerilis est, et precario concludit, et periculo exponitur ab instantia contradictoria, et plerumque secundum pauciora quam par est, et ex his tantummodo quæ præsto sunt, pronunciat. At *inductio*, quæ ad inventionem et demonstrationem scientiarum et artium erit utilis, naturam separare debet, per rejectiones et exclusiones debitas; ac deinde post negativas tot quot sufficiunt, super affirmativas concludere; quod adhuc factum non est, nec tentatum certe, nisi tantummodo a Platone, qui ad excutiendas definitiones et ideas, hac certe forma inductionis aliquatenus utitur. Verum ad hujus inductionis sive demonstrationis instructionem bonam et legitimam quamplurimn adhibenda sunt, quæ adhuc nullius mortalium cogitationem subiere; adeo ut in ea major sit consumenda opera, quam adhuc consumpta est in syllogismo; atque hujus inductionis auxilio, non solum ad axiomata invenienda, verum etiam ad notiones terminandas, utendum est. Atque in hac certe inductione spes maxima sita est.

CVI.

At in axiomatibus constituendis per hanc inductionem examinatio et probatio etiam faciendа est, utrum quod constituitur axioma aptatum sit tantum, et ad mensuram factum eorum particularium, ex quibus extrahitur; an vero sit amplius aut latius. Quod si sit amplius aut latius, videndum an eam suam amplitudinem et latitudinem, per novorum particularium designationem, quasi fidejussione quadam, firmet; ne vel in jam notis tantum hæreamus, vel laxiore fortasse complexu umbras et formas abstractas, non solida et determinata in materia, pren-

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semus. Hæc vero cum in usum venerint, solida tum demum spes merito affulserit.

CVII.

Atque hic etiam resumendum est, quod superius dictum est de naturali philosophia producta, et scientiis particularibus ad eam reductis, ut non fiat scissio et truncatio scientiarum; nam etiam absque hoc minus de progressu sperandum est.

CVIII.

Atque de desperatione tollenda, et spe facienda, ex præteriti temporis erroribus valere jussis, aut rectificatis, jam dictum est. Videndum autem et si quæ alia sint, quæ spem faciant. Illud vero occurrit; si hominibus non quærentibus, et aliud agentibus, multa utilia, tanquam casu quodam, aut per occasionem, inventa sint; nemini dubium esse posse, quin iisdem quærentibus, et hoc agentibus, idque via et ordine, non impetu et desultorie, longe plura detegi necesse sit. Licet enim semel aut iterum accidere possit, ut quispiam in id forte fortuna incidat, quod magno conatu et de industria scrutantem antea fugit; tamen in somma rerum proculdubio contrarium invenitur. Itaque longe plura et meliora, atque per minora intervalla, a ratione et industria, et directione, et intentione hominum, speranda sunt, quam a casu et instinctu animalium, et hujusmodi, quæ hactenus principium inventis dederunt.

CIX.

Etiam illud ad spem trahi possit, quod nonnulla ex his, quæ jam inventa sunt, ejus sint generis, ut, antequam invenirentur, haud facile cuiquam in mentem venisset de iis aliquid suspicari: sed plane quis illa ut impossibilia contempsisset. Solent enim homines de rebus novis, ad exemplum veterum, et secundum phantasiam ex iis præceptam et inquinatam, hariolari; quod genus opinandi fallacissimum est, quandoquidem multa ex his, quæ ex fontibus rerum petuntur, per rivulos consuetos non fluant.

Veluti si quis, ante tormentorum igneorum inventionem, rem per effectus descripsisset, atque in hunc modum dixisset; Inventum quoddam detectum esse, per quod muri, et munitiones quæque maximæ, ex longo intervallo concuti et dejici possint; homines sane de viribus tormentorum et machinarum, per pondera, et rotas, et hujusmodi arietationes et impulsus, multiplicandis, multa et varia secum cogitaturi fuissent: de vento autem igneo, tam subito et violenter se expandente et exsufflante, vix unquam aliquid alienjus imaginationi, aut phantasiæ, occursurum fuisset; utpote cujus exemplum in proximo non vidisset, nisi forte in terræ motu, aut fulmine, quæ ut magnalia naturæ, et non imitabilia ab homine, homines statim rejecturi fuissent.

Eodem modo, si ante fili bombycini inventionem, quispiam hujusmodi sermonem injecisset; Esse quoddam fili genus inventum ad vestium et supellectilis usum, quod filum lintenm aut lanenm tenuitate, et nihilominus tenacitate, ac etiam splendore et mollitie, longe superaret; homines statim aut de serico aliquo vegetabili, aut de animalis alicujus pilis delicatioribus, aut de avium plumis et lanugine, aliquid opinaturi fuissent; verum de vermis pusilli textura, eaque tam copiosa, et se renovante, et anniversaria, nil fuissent certe commenturi. Quod si quis etiam de vermi verbum aliquod injecisset, ludibrio certe foturus fuisset, ut qui novas aranearum operas somniaret.

Similiter, si, ante inventionum acus nauticæ, quispiam hujusmodi sermonem intulisset; Inventum esse quoddam instrumentum, per quod cardines et puncta cœli exacte capi et dignosci possint; homines statim de magis exquisita fabricatione instrumentorum astronomicorum, ad multa et varia, per ingitationem phantasiæ, discursuri fuissent; quod vero aliquid inveniri possit, cujus motus cum cœlestibus tam bene conveniret, atque ipsum tamen ex cœlestibus non esset, sed tantum substantia lapidea aut metallica; omnino incredibile visum fuisset. Atque hæc tamen, et similia, per tot mundi ætates, homines latuerunt, nec per philosophiam, aut artes rationales inventa sunt, sed casu, et per occasionem; suntque illius (ut diximus) generis, ut ab iis, quæ antea cognita fuerunt, plane heterogenea et remotissima sint, ut prænotio aliqua nihil prorsus ad illa conducere potuisset.

Itaque sperandum omnino est, esse adhuc in naturæ sinu multa excellentis osus recondita, quæ nullam cum jam inventis cognationem habent aut parallelismum; sed omnino sita sunt extra vias phantasiæ; quæ tamen adhuc inventa non sunt; quæ proculdubio per multos seculorum circuitus et ambages, et ipsa quandoque prodibunt, sicut illa superiora prodierunt; sed per viam, quam nunc tractamus, propere, et subito, et simul repræsentari et anticipari possunt.

CX.

Attamen conspiciuntur et alia inventa ejus generis, quæ fidem faciant, posse genus humanum nobilia inventa, etiam ante pedes posita, præterire, et transilire. Utcunque enim pulveris tormentarii, vel fili bombycini, vel aeus nauticæ, vel saccharl, vel papyri, vel similium inventa, quibusdam rerum et naturæ proprietatibus niti videantur; at certe imprimendi artificium nil habet, quod non sit apertum et fere obvium. Et nihilominus homines, non advertentes, literarum modulos difficilius scilicet collocari, quam literæ per motum manus scribantur; sed hoc interesse, quod literarum moduli, semel collocati, infinitis impressionibus, literæ autem per manum exaratæ, unicæ tantum scriptioni sufficiant; aut fortasse iterum non advertentes, atramentum ita inspissari posse, ut tingat, non fluat; præsertim literis resupinatis, et impressione facta desuper; hoc pulcherrimo invento (quod ad doctrinarum propagationem tantum facit) per tot secula caruerunt.

Solet autem mens humana, in hoc inventionis curriculo, tam læva sæpenumero et male composita esse, ut primo diffidat, et paulo post se contemnat; atque primo incredibile ei videatur, aliquid tale inveniri posse; postquam autem inventum sit, incredibile rursus videatur, id homines tamdin fugere potuisse. Atque hoc ipsum ad spem rite trahitur; superesse nimirum adhuc magnum inventorum cumulum, qui non solum ex operationibus incognitis

eruendis, sed et ex jam cognitis transferendis, et componendis, et applicandis, per eam, quam diximus experientiam literatam, deduci possit.

CXI.

Neque illud omittendum ad faciendam apem; reputent (si placet) homines infinitas ingenii, temporis, facultatum expensas, quas homines in rebus et studiis longe minoris usus et pretii collocant; quorum pars quota si ad sana et solida verteretur, nulla non difficultas superari possit. Quod ideireo adjungere visum est, quia plane fatemur historiæ naturalis et experimentalis collectionem, qualem animo metimur, et qualis esse debet, opus esse magnum, et quasi regium, et multæ operæ atque impensæ.

CXII.

Interim particularium multitudinem nemo reformidet, quin potius hoc ipsum ad spem revocet. Sunt enim artium et naturæ particularia *phænomena*, manipuli instar, ad ingenii commenta, postquam ab evidentia rerum disjuncta et abstracta fuerint. Atque hujus viæ exitus in aperto est, et fere in propinquo; alterius exitus nullus, sed implicatio infinita. Homines enim adhuc parvam in experientia moram fecerunt, et eam leviter perstrinxerunt, sed in meditationibus et commentationibus ingenii infinitum tempus contriverunt. Apud nos vero si esset præsto quispiam, qui de facto naturæ ad interrogata responderet, paucorum annorum esset inventio causarum et scientiarum omnium.

CXIII.

Etiam nonnihil hominibus spei fieri posse putamus ab exemplo nostro proprio; neque jactantiæ causa hoc dicimus, sed quod utile dictu sit. Si qui diffidant, me videant, hominem, inter homines ætatis meæ civilibus negotiis occupatissimum, nec firma admodum valetudine (quod magnum habet temporis dispendium) atque in hac re plane protopirum, et vestigia nullius secutum, neque hæc ipsa cum ullo mortalium communicantem; et tamen veram viam constanter ingressum, et ingenium rebus submittentem, hæc ipsa aliquatenus (ut existimamus) provexisse: et deinceps videant, quid ab hominibus otio abundantibus, atque a laboribus consociatis, atque a temporum successione, post hæc indicia nostra expectandum sit; præsertim in via, quæ non singulis solummodo pervia est (ut fit in via illa rationali) sed ubi hominum labores et operæ (præsertim quantum ad experientiæ collectam) optime distribui, et deinde componi possint. Tum enim homines vires suas nosse incipient, cum non eadem infiniti, sed alia ălii præstabunt.

CXIV.

Postremo, etiamsi multo infirmior et obscurior aura spei ab *ista nova continente* spiraverit; tamen omnino experiendum esse (nisi velimus animi esse plane abjecti) statuimus. Non enim res pari periculo non tentatur, et non succedit; cum in illo, ingentis boni; in hoc, exiguæ humanæ operæ jactura vertatur. Verum ex dictis, atque etiam ex non dictis, visum est nobis, spei abunde subesse, non tantum homini strenno ad experiendum, sed etiam prudenti et sobrio ad credendum.

CXV.

Atque de desperatione tollenda, quæ inter causas potentissimas ad progressum scientiarum removendum et inhibendum fuit, jam dictum est: atque simul sermo de signis et causis errorum, et inertiæ, et ignorantiæ, quæ invaluit, absolutus est; præsertim cum subtiliores causæ, et quæ in judicium populare aut observationem non incurrunt, ad ea, quæ de *idolis* animi humani dicta sunt, referri debeant.

Atque hic simul pars destruens *Instaurationis* nostræ claudi debet, quæ perficitur tribus redargutionibus; redargutione nimirum *humanæ rationis nativæ*, et sibi permissæ; redargutione *demonstrationum*; et redargutione *theoriarum*, sive philosophiarum et doctrinarum, quæ receptæ sunt. Redargutio vero earum talis fuit, qualis esse potuit; videlicet per signa et evidentiam causarum; cum confutatio alia nulla a nobis (qui et de principiis, et de demonstrationibus, ab aliis dissentimus) adhiberi potuerit.

Quocirca tempus est, ut ad ipsam artem et normam *interpretandi naturam* veniamus; et tamen nonnihil restat, quod prævertendum est. Cum enim in hoc primo *aphorismorum* libro illud nobis propositum sit, ut tam ad intelligendum, quam ad recipiendom ea, quæ sequuntur, mentes hominum præparentur; expurgata jam, et abrasa, et æquata mentis area, sequitur ut mens sistatur in positione bona, et tanquam aspectu benevolo, ad ea quæ proponemus. Valet enim in re nova ad præjudicium, non solum præoccupatio fortis opinionis veteris, sed et præceptio sive præfiguratio falsa rei, quæ affertur. Itaque consbimur efficere, ut habeantur bonæ et veræ, de iis quæ adducimus, opiniones, licet ad tempus tantummodo, et tanquam usurariæ, donec res ipsa pernoscatur.

CXVI.

Primo itaque postulandum videtur, ne existiment homines, nos, more antiqnorum Græcorum, aut quorundam novorum hominum, Telesii, Patricii, Severini, sectam aliqnam in philosophia condere velle: neque enim hoc agimus, neque etiam multum interesse putamus ad hominum fortunas, quales quis opiniones abstractas de natura et rerum principiis habeat: neque dubium est, quin multa hujusmodi, et vetera revocari, et nova introduci possint; quemadmodum et complura themata cœli supponi possunt, quæ cum *phænomenis* sat bene conveniunt, inter se tamen dissentiunt.

At nos de hujusmodi rebus opinabilibus, et simul inutilibus, non laboramus. At contra nobis constitutum est experiri, an revera potentiæ et amplitudinis humanæ firmiora fundamenta jacere, ac fines in latius proferre possimus. Atque licet sparsim, et in aliquibus subjectis specialibus, longe veriora habeamus, et certiora (ut arbitramur) atque etiam magis fructuosa, quam quibus homines adhuc utuntur (quæ in quintam *Instaurationis* nostræ partem congessimus) tamen theoriam nullam universalem, aut integram proponimus. Neque enim huic rei tempus adhuc adesse videtur. Quin nec spem habemus vitæ

producendæ, ad sextam *Instaurationis* partem (quæ philosophiæ, per legitimam naturæ interpretationem inventæ, destinata est) absolvendam; sed satis habemus, si in mediis sobrie et utiliter nos geramus, atque interim semina veritatis sinceriora in posteros spargamus, atque initiis rerum magnarum non desimus.

CXVII.

Atque quemadmodum sectæ conditores non sumus; ita nec operum particularium largitores aut promissores. Attamen possit aliquis hoc modo occurrere; quod nos, qui tam sæpe operum mentionem faciamus, et omnia eo trahamus, etiam operum aliquorum pignora exhibeamus. Verum via nostra et ratio (ut sæpe perspicue diximus, et adhuc dicere juvat) ea est; ut non opera ex operibus, sive experimenta ex experimentis (ut empirici) sed ex operibus et experimentis causas et axiomata, atque ex causis et axiomatibus rursus nova opera et experimenta (ut legitimi naturæ interpretes) extrahamus.

Atque licet in tabulis nostris inveniendi (ex quibus quarta pars *Instaurationis* consistit) atque etiam exemplis particularium (quas in secunda parte adduximus) atque insuper in observationibus nostris super historiam (quæ in tertia parte operis descripta est) quivis vel mediocris perspicaciæ et solertiæ, complurium operum nobilium indicationes et designationes ubique notabit; ingenue tamen fatemur, historiam naturalem, quam adhuc habemus, aut ex libris, aut ex inquisitione propria, non tam copiosam esse et verificatam, ut legitimæ interpretationi satisfacere aut ministrare possit.

Itaque si quis ad mechanica sit magis aptus et paratus, atque sagax ad venanda opera, ex conversatione sola eum experimentis, ei permittimus et relinquimus illam industriam, ut ex historia nostra et tabulis multa, tanquam in via, decerpat et applicet ad opera, ac veluti fœnus recipiat ad tempus, donec sors haberi possit. Nos vero, cum ad majora contendamus, moram omnem præproperam et præmaturam in istiusmodi rebus, tanquam Atalantæ pilas (ut sæpius solemus dicere) damnamus. Neque enim aurea poma pueriliter affectamus, sed omnia in victoria cursus artis super naturam ponimus; neque museum aut segetem herbidam demetere festinamus, sed messem tempestivam expectamus.

CXVIII.

Occurret etiam alicui proculdubio, postquam ipsam historiam nostram et inventionis tabulas perlegerit, aliquid in ipsis experimentis minus certum, vel omnino falsum; atque propterea secum fortasse reputabit, fundamentis et principiis falsis et dubiis inventa nostra niti. Verum hoc nihil est; necesse enim est, talia sub initiis evenire. Simile enim est ac si in scriptione aut impressione, una forte litera, aut altera, perperam posita aut collocata sit; id enim legentem non multum impedire solet, quandoquidem errata ab ipso sensu facile corriguntur. Ita etiam cogitent homines, multa in historia naturali experimenta falso credi et receipi posse; quæ paulo post a causis et axiomatibus inventis facile expunguntur et rejiciuntur. Sed tamen verum est, si in historia naturali, et experimentis, magna, et crebra, et continua fuerint errata, illa nulla ingenii aut artis felicitate corrigi, aut emendari posse. Itaque si in historia nostra naturali, quæ tanta diligentia et severitate, et fere religione, probata et collecta est, aliquid in particularibus quandoque subsit falsitatis aut erroris; quid tandem de naturali historia vulgari, quæ præ nostra tam negligens est et facilis, dicendum erit? aut de philosophia et scientiis super hujusmodi arenas (vel syrtes potius) ædificatis? Itaque hoc, quod diximus, neminem moveat.

CXIX.

Occurrent etiam in historia nostra et experimentis plurimæ res; primo leves et vulgatæ, deinde viles et illiberales, postremo nimis subtiles ac mere speculativæ, et quasi nullius usus: quod genus rerum hominum studia avertere et alienare possit.

Atque de istis rebus, quæ videntur vulgatæ, illud homines cogitent; solere sane eos adhuc nihil aliud agere, quam ut eorum, quæ rara sunt, causas ad ea, quæ frequenter fiunt, referant et accommodent; at ipsorum, quæ frequenter eveniunt, nullas causas inquirant, sed ea ipsa receipiant tanquam concessa et admissa.

Itaque non ponderis, non rotationis cœlestium, non caloris, non frigoris, non luminis, non duri, non mollis, non tenuis, non densi, non liquidi, non consistentis, non animati, non inanimati, non similaris, non dissimilaris, nec demum organici causas quæruntur; sed, illis tanquam pro evidentibus et manifestis receptis, de cæteris, rebus, quæ non tam frequenter et familiariter occurrunt, disputant et judicant.

Nos vero, qui satis scimus, nullum de rebus raris aut notabilibus judicium fieri posse, multo minus res novas in lucem protrahi, absque vulgarium rerum causis, et causarum causis rite examinatis et repertis; necessario ad res vulgarissimas in historiam nostram recipiendas compellimur. Quinetiam nil magis philosophiæ offecisse deprehendimus, quam quod res, quæ familiares sunt, et frequenter occurrunt, contemplationem hominum non morentur et detineant, sed recipiantur obiter, neque earum causæ quæri soleant; ut non sæpius requiratur informatio de rebus ignotis, quam attentio in notis.

CXX.

Quod vero ad rerum utilitatem attinet, vel etiam turpitudinem, quibus (ut ait Plinius) honos præfandus est; eæ res, non minus quam lautissimæ et pretiosissimæ, in historiam naturalem receipiendæ sunt. Neque propterea polluitur naturalis historia: Sol enim æque palatia et eloacas ingreditur, neque tamen pollnitur. Nos autem non capitolium aliquod aut pyramidem hominum superbiæ dedicamus aut condimus, sed templum sanctum ad exemplar mundi in intellectu humano fundamus. Itaque exemplar sequimur. Nam quicquid essentia dignum est, id etiam scientia dignum; quæ est essentiæ imago. At vilia æque subsistunt, ac lauta. Quinetiam, ut e quibusdam putridis materiis, veluti museo et zibetho, aliquando optimi odores generantur; ita et ab instantiis vilibus et sordidis quandoque eximia lux et informatio emanant. Verum de hoc nimis multa; cum hoc genus fastidii sit plane puerile et effœminatum.

CXXI.

At de illo omnino magis accurate dispiciendum: Quod plurima in historia nostra eaptui vulgari, aut etiam cuivis intellectui (rebus præsentibus assuefacto) videbuntur curiosæ cujusdam et inutilis subtilitatis. Itaque de hoc ante omnia et dictum et dieendum est. Hoc scilicet; Nos, jam sub initiis et ad tempus, tantum *lucifera* experimenta, non fructifera quærere; ad exemplum creationis divinæ, quod sæpius diximus, quæ primo die lucem tantum produxit, eique soli unum integrum diem attribuit, neque illo die quicquam materiati operis immiscuit.

Itaque si quis istiusmodi res nullius esse usus putet, idem cogitat ac si nullum etiam lucis esse usum censeat, quia res scilicet solida aut materiata non sit. Atque revera dieendum est, simplicium naturarum cognitionem bene examinatam et definitam instar lucis esse; quæ ad universa operum penetralia aditum præbet; atque tota agmina operum et turmas, et axiomatum nobilissimorum fontes, potestate quadam complectitur, et post se trahit; in se tamen non ita magni usus est. Quin et literarum elementa per se et separatim nihil significant, nec alicujus usus sunt; sed tamen ad omnis sermonis compositionem et apparatum instar materiæ primæ sunt. Etiam semina rerum, potestate valida, usu (nisi in processu suo) nihili sunt. Atque lucis ipsius radii dispersi, nisi coëant, beneficium suum non impertiuntur.

Quod si quis subtilitatibus speculativis offendatur; quid de scholasticis viris dicendum erit, qui subtilitatibus immensum indulserunt? Quæ tamen subtilitates in verbis, aut saltem vulgaribus notionibus (quod tantundem valet) non in rebus aut natura, consumptæ fuerunt; atque utilitatis expertes erant, non tantum in origine, sed etiam in consequentiis; tales autem non fuerunt, ut haberent in præsens utilitatem nullam, sed per consequens infinitam; quales sunt eæ, de quibus loquimur. Hoc vero sciant homines pro certo, omnem subtilitatem disputationem et discursuum mentis, si adhibeatur tantum post axiomata inventa, seram esse et præposteram; et subtilitatis tempus verum ac proprium, aut saltem præcipuum, versari in pensitanda experientia, et inde constituendis axiomatibus: nam illa altera subtilitas naturam prensat et captat, sed nunquam apprehendit aut capit. Et verissimum certe est, quod de occasione sive Fortuna dici solet, si transferratur ad naturam: videlicet, "eam a fronte comatam, ab occipitio calvam esse."

Denique de contemptu, in naturali historia, rerum aut vulgarium, aut vilium, aut nimis subtilium, et in originibus suis inutilium, illa vox mulierculæ ad tumidum principem, qui petitionem ejus, ut rem indignam et majestate sua inferiorem, abjecisset, pro oraculo sit; "Desine ergo rex esse:" quia certissimum est, imperium in naturam, si quis hujusmodi rebus, ut nimis exilibus et minutis, vacare nolit, nec obtineri nec geri posse.

CXXII.

Occurrit etiam et illud; mirabile quiddam esse et durum, quod nos omnes scientias atque omnes auctores simul, ac veluti uno ictu et impetu, summoveamus; idque non assumpto aliquo ex antiquis in auxilium et præsidium nostrum, sed quasi viribus propriis.

Nos autem scimus, si minus sincera fide agere voluissemus, non difficile fuisse nobis, ista, quæ afferuntur, vel ad antiqua secula ante Græcorum tempora (eum scientiæ de natura magis fortasse, sed tamen majore eum silentio, florucrint; neque in Græcorum tubas et fistulas adhuc ineidissent) vel etiam (per partes certe) ad aliquos ex Græcis ipsis referre, atque astipulationem et honorem inde petere; more novorum hominum, qui nobilitatem sibi ex antiqua aliqua prosapia, per genealogiarum favores, astruunt et affingunt. Nos vero, rerum evidentia freti, omnem commenti et impostura conditionem rejicimus, neque ad id quod agitur plus interesse putamus, utrum, quæ jam invenientur, antiquis olim cognita, et per rerum vicissitudines et secula occidentia et orientia sint; quam hominibus curæ esse debere, utrum novus orbis fuerit insula illa Atlantis, et veteri mundo cognita; an nunc primum reperta. Rerum enim inventio a naturæ luce petenda, non ab antiquitatis tenebris repetenda est.

Quod vero ad universalem istam reprehensionem attinet, certissimum est vere rem reputanti, eam et magis probabilem esse, et magis modestam, quam si facta fuisset ex parte. Si enim in primis notionibus errores radicati non fuissent, fieri non potuisset, quin nonnulla recte inventa, alia perperam inventa correxissent. Sed cum errores fundamentales fuerint, atque ejusmodi, ut homines potius res neglexerint ac prætcrierint, quam de illis pravum aut falsum judicium fecerint; minime mirum est, si homines id non obtinuerint, quod non egerint; nec ad metam pervenerint, quam non posuerint aut collocarint; neque viam emensi sint, quam non ingressi sint aut tenuerint.

Atque insolentiam rei quod attinet; certe si quis manus constantia atque oculi vigore lineam magis rectam, aut circulum magis perfectum se describere posse, quam alium quempiam, sibi assumat; indu citur scilicet facultatis comparatio: quod si quia asserat, se adhibita regula, aut circumducto circino, lineam magis rectam, aut circulum magis perfectum posse describere, quam aliquem alium vi sola oculi et manus; is certe non admodum jactator fuerit. Quin hoc, quod dicimus, non solum in hoc nostro conatu primo et inceptivo locum habet; sed etiam pertinet ad eos, qui huic rei posthac incumbent. Nostra enim vis invcnicndi scientias exæquat fere ingenia, et non multum excellentiæ eorum relinquit: eum omnia per certissimas regulas et demonstrationes transigat. Itaque hæc nostra (ut sæpe diximus) felicitatis cujusdam sunt potius, quam facultatis, et potius temporis partus quam ingenii. Est enim certe casus aliquis non minus in cogitationibus humanis, quam in operibus et factis.

CXXIII.

Itaque dicendum de nobis ipsis quod ille per jocum dixit, præsertim cum tam bene rem secet: "Fieri non potest ut idem sentiant, qui aquam et qui vinum bibant." At cæteri homines, tam veteres

quam novi, liquorem biberunt crudum in scientiis, tanquam aquam vel sponte ex intellectu manantem, vel per diulectieam tanquam per rotas ex puteo haustam: At nos liquorem bibimus et propinamus ex infinitis confectum uvis, iisque maturis et tempestivis, et per racemos quosdam collectis ac decerptis; et subinde in torcular pressis, ac postremo in vase repurgatis et clarificntis. Itaque nil mirum, si nobis cum aliis non conveniat.

CXXIV.

Occurret proculdubio et illud: nec metam aut scopum scientiarum a nobis ipsis (id quod in aliis reprehendimus) verum et optimum præfixum esse. Esse enim contemplationem veritatis, omni operum utilitate et magnitudine digniorem et celsiorem: longum vero istam et solicitum morum in experientia et materia, et rerum particularium fluctibus, mentem veluti humo affigere, vel potius in Tartarum quoddam confusionis et perturbationis dejicere; atque abstractæ sapientiæ serenitate et tranquillitate (tanquam a statu multo diviniore) arcere et summovere. Nos vero huic rationi libenter assentimur; et hoc ipsum, quod innuunt ac præoptant, præcipue atque ante omnia agimus. Etenim verum exemplar mundi in intellectu humano fundamus, quale invenitur, non quale cuipiam sua propria ratio dictaverit. Hoc autem perfici non potest, nisi factis mundi dissectione atque anatomia diligentissima. Modulos vero ineptos mundorum et tanquam simiolas, quas in philosophiis phantasiæ hominum extruxerunt omnino dissipandas edicimus. Sciant itaque homines (id quod superius diximus) quantum intersit inter humanæ mentis *idola* et divinæ mentis ideas. Illa enim nihil aliud sunt quam abstractiones ad placitum: hæ autem sunt vera signacula Creatoris super creaturas, prout in materia per lineas veras et exquisitas imprimuntur et terminantur. Itaque ipsissimæ res sunt (in hoc genere) veritas et utilitas: atque opera ipsa pluris facienda sunt, quatenus sunt veritatis pignora, quam propter vitæ commodum.

CXXV.

Occurret fortasse et illud: nos tamquam metum agere; atque antiquos ipsos eundem, quam nos, viam tenuisse. Itaque verisimile putabit quispiam etiam nos, post tantum motum et molitionem, deventuros tandem ad aliquam ex illis philosophiis, quæ apud antiquos valuerunt. Nam et illos in meditationum suarum principiis vim et copiam magnam exemplorum et particularium paravisse; atque in commentarios per locos et titulos digessisse; atque inde philosophias suas et artes confecisse, et postea, re comperta, pronuntiasse; et exempla ad fidem et docendi lumen sparsim addidisse; sed particularium notas, et codicillos ne commentarios suos in lucem edere, supervacuum et molestum putasse: ideoque fecisse quod in ædificando fieri solet; nempe post ædificii structuram, machinas et scalas a conspectu amovisse. Neque aliter factum esse credere certe oportet. Verum nisi quis omnino oblitus fuerit eorum, quæ superius dicta sunt, huic objectione (aut scrupulo potius) facile respondebit. Formam enim inquirendi et inveniendi apud antiquos et ipsi profitemur, et scripta eorum præ se ferunt. Ea autem non alia fuit, quam ut ab exemplis quibusdam et particularibus (additis notionibus communibus, et fortasse portione nonnulla ex opinionibus receptis, quæ maxime placuerunt) ad conclusiones maxime generales sive principia scientiarum advolarent; ad quorum veritatem immotam et fixam, conclusiones inferiores per medias educerent ac probarent; ex quibus artem constituebant. Tum demum si nova particularia et exempla mota essent et adducta, quæ placitis suis refragarentur; illa aut per distinctiones, aut per regularum suarum explanationes, in ordinem subtiliter redigebant; aut demum per exceptiones grosso modo summovebant: at rerum particularium non refragantium cursus ad illa principia sua laboriose et pertinaciter accommodabant. Verum nec historia naturalis et experientia illa erat, quam fuisse oportebat (longe certe abest); et ista advolatio ad generalissima, omnia perdidit.

CXXVI.

Occurret et illud; nos, propter inhibitionem quandam pronunciandi, et principia certe ponendi, donec per medios gradus ad generalissima rite perventum sit, suspensionem quandam judicii tueri, atque ad *acatalepsiam* rem deducere. Nos vero non *acatalepsiam*, sed *eucatalepsiam* meditamur et proponimus: sensui enim non derogamus, sed ministramus; et intellectum non contemnimus, sed regimus. Atque melius est scire quantum opus sit, et tamen nos non penitus scire putare; quam penitus scire nos putare, et tamen nil eorum, quæ opus est, scire.

CXXVII.

Etiam dubitabit quispiam potius quam objiciet; utrum nos de naturali tantum philosophia, an etiam de scientiis reliquis, logicis, ethicis, politicis, secundum viam nostram perficiendis, loquamur. At nos certe de universis hæc, quæ dicta sunt, intelligimus: atque quemadmodum vulgaris logica, quæ regit res per syllogismum, non tantum ad naturales, sed ad omnes scientias pertinet; ita et nostra, quæ procedit *per inductionem*, omnia complectitur. Tum enim historiam et tabulas inveniendi conficimus de ira, metu, et verecundia, et similibus; ne etiam de exemplis rerum civilium: nec minus de motibus mentalibus memoriæ, compositionis et divisionis, judicii, et reliquorum; quam de calido et frigido, aut lace, aut vegetatione, aut similibus. Sed tamen cum nostra ratio *interpretandi*, post historiam præparatam et ordinatam, non mentis tantum motus et discursus (ut logica vulgaris) sed et rerum naturam intueatur; ita mentem regimus, ut ad rerum naturam se, aptis per omnia modis, applicare possit. Atque propterea multa et diversa in doctrina *interpretationis* præcipimus, quæ ad subjecti, de quo inquirimus, qualitatem et conditionem, modum inveniendi nonnulla ex parte applicent.

CXXVIII.

At illud de nobis ne dubitare quidem fas sit; utrum nos philosophiam et artes et scientias, quibus

utimur, destruere et demoliri cupiamus: contra enim, earum et usum et cultum et honores libenter am plectimur. Neque enim ullo modo officimus, quin istæ, quæ invaluerunt, et disputationes alant, et sermones ornent, et ad professoria munera ac vitæ civilis compendia adhibeantur et valeant; denique tanquam numismata quædam, consensu inter homines recipiantur. Quinetiam significamus aperte ea, quæ nos adducimus, ad istas res non multum idonea futura; cum ad vulgi captum deduci omnino non possint, nisi per effecta et opera tantum. At hoc ipsum, quod de affectu nostro et bona voluntate erga scientias receptas dicimus, quam vere profiteamur, scripta nostra in publicum edita (præsertim libri "De Progressu Scientiarum") fidem faciant. Itaque id verbis amplius vincere non conabimur. Illud interim constanter et diserte monemus; his modis, qui in usu sunt, nec magnos in scientiarum doctrinis et contemplatione progressus fieri, nec illas ad amplitudinem operum deduci posse.

CXXIX.

Superest ut de finis excellentia pauca dicamus. Ea si prius dicta fuissent, votis similia videri potuissent: sed spe jam facta, et iniquis præjudiciis sublatis, plus fortasse ponderis habebunt. Quod si nos omnia perfecissemus et plane absolvissemus, nec alios in partem et consortium laborum subinde vocaremus: etiam ab hujusmodi verbis abstinuissemus, ne acciperentur in prædicationem meriti nostri. Cum vero aliorum industria acuenda sit, et animi excitandi atque accendendi; consentaneum est, ut quædam hominibus in mentem redigamus.

Primo itaque, videtur inventorum nobilium introductio inter actiones humanas longe primas partes tenere; id quod antiqua secula judicaverunt. Ea enim inventoribus divinos honores tribuerunt: iis autem, qui in rebus civilibus merebantur (quales erant urbium et imperiorum conditores, legislatores, patrinrum a diuturnis malis liberatores, tyrannidum debellatores, et his similes) heroum tantum honores decreverunt. Atque certe si quis ea recte conferat, justum hoc prisci seculi judicium reperiet. Etenim inventorum beneficia ad universum genus humanum pertinere possunt; civilia ad certas tantummodo hominum sedes: hæc etiam non ultra paucas ætates durant; illa quasi perpetuis temporibus. Atque status emendatio in civilibus non sine vi et perturbatione plerumque procedit: at inventa beant, et beneficium deferunt absque alicujus injuria aut tristitia.

Etiam inventa quasi novæ creationes sunt, et divinorum operum imitamenta, ut bene cecinit ille:

> Primum frugiferos fœtus mortalibus ægris
> Dididerunt quondam præstanti nomine Athenæ:
> Et RECREAVERUNT vitam, legesque rogarunt.
> LUCRET. l. vi. 1.

Atque videtur notatu dignum in Salomone; quod cum imperio, auro, magnificentia operum, satellitio, familitio, classe insuper, et nominis claritate, ac summa hominum admiratione floreret; tamen nihil horum delegerit sibi ad gloriam, sed ita pronunciaverit: "Gloriam Dei esse, celare rem; gloriam regis, investigare rem."

Rursus (si placet) reputet quispiam, quantum intersit inter hominum vitam in excultissima quapiam Europæ provincia, et in regione aliqua novæ Indiæ maxime fera et barbara: ea tantum differre existimabit, ut merito *hominem homini deum esse*, non solum propter auxilium et beneficium, sed etiam per status comparationem, recte dici possit. Atque hoc non solum, non cœlum, non corpora; sed artes præstant.

Rursus, vim et virtutem et consequentias rerum inventarum notare juvat: quæ non in aliis manifestius occurrent, quam in illis tribus, quæ antiquis incognitæ; et quarum primordia, licet recentia, obscura et ingloria sunt: artis nimirum imprimendi, pulveris tormentarii, et acus nauticæ. Hæc enim tria, rerum faciem et statum in orbe terrarum mutaverunt: primum, in re literaria: secundum, in re bellica: tertium, in navigationibus; unde innumeræ rerum mutationes secutæ sunt, ut non imperium aliquod, non secta, non stella majorem efficaciam et quasi influxum super res humanas exercuisse videatur, quam ista mechanica exercuerunt.

Præterea non abs re fuerit, tria hominum ambitionis genera et quasi gradus distinguere. Primum eorum, qui propriam potentiam in patria sua amplificare cupiunt; quod genus vulgare est et degener. Secundum eorum, qui patriæ potentiam et imperium inter humanum genus amplificare nituntur; illud plus certe habet dignitatis, cupiditatis haud minus. Quod si quis humani generis ipsius potentiam et imperium in rerum universitatem instaurare et amplificare conetur; ea proculdubio ambitio (si modo ita vocanda sit) reliquis et sanior est et augustior. Hominis autem imperium in res, in solis artibus et scientiis ponitur: naturæ enim non imperatur, nisi parendo.

Præterea, si unius alicujus particularis inventi utilitas ita homines affecerit, ut eum, qui genus humanum universum beneficio aliquo devincire potuerit, homine majorem putaverint; quanto celsius videbitur tale aliquid invenire, per quod alia omnia expedite inveniri possint? Et tamen (ut verum omnino dicamus) quemadmodum luci magnam habemus gratiam, quod per eam vias inire, artes exercere, legere, nos invicem dignoscere possimus, et nihilominus ipsa visio lucis res præstantior est et pulchrior, quam multiplex ejus usus: ita certe ipsa contemplatio rerum, prout sunt, sine superstitione aut impostura, errore aut confusione, in se ipsa magis digna est, quam universus inventorum fructus.

Postremo siquis depravationem scientiarum et artium ad malitiam et luxuriam, et similia, objecerit; id neminem moveat. Illud enim de omnibus mundanis bonis dici potest, ingenio, fortitudine, viribus, forma, divitiis, luce ipsa, et reliquis. Recuperet modo genus humanum jus suum in naturam, quod ei ex dotatione divina competit; et detur ei copia: usum vero recta ratio et sana religio gubernabit.

CXXX.

Jam vero tempus est, ut artem ipsam *interpretandi* naturam proponamus: in qua licet nos utilissima et verissima præcepisse arbitremur; tamen necessitatem ei absolutam (ac si absque ea nil agi

possit) aut etiam perfectionem non attribuimus. Etenim in ea opinione sumus; si justam naturæ et experientiæ historiam præsto haberent homines, atque in ea sedulo versarentur; sibique duas res imperare possent; unam, ut receptas opiniones et notiones deponerent; alterum, ut mentem a generalissimis et proximis ab illis, ad tempus cohiberent; fore ut etiam vi propria et genuina mentis, absque alia arte, in formam nostram *interpretandi* incidere possent. Est enim *interpretatio* verum et naturale opus mentis, demptis iis, quæ obstant: sed tamen omnia certe per nostra præcepta erunt magis in procinctu et multo firmiora.

Neque tamen illis nihil addi posse affirmamus: sed contra, nos, qui mentem respicimus, non tantum in facultate propria, sed quatenus copulatur cum rebus; artem inveniendi cum inventis adolescere posse, statuere debemus.

LIBER SECUNDUS

APHORISMORUM,

DE

INTERPRETATIONE NATURÆ, SIVE DE REGNO HOMINIS.

APHORISMUS I.

Super datum corpus novam naturam, sive novas naturas generare et superinducere, opus et intentio est humanæ potentiæ. Datæ autem naturæ formam, sive differentiam veram, sive naturam naturantem, sive fontem emanationis (ista enim vocabula habemus, quæ ad indicationem rei proxime accedunt) invenire, opus et intentio est humanæ scientiæ. Atque his operibus primariis subordinantur alia opera duo secundaria et inferioris notæ; priori, transformatio corporum concretorum de alio in aliud, intra terminos *possibiles;* posteriori, inventio, in omni generatione et motu, *latentis processus* continuati ab efficiente manifesto, et materia manifesta, usque ad formam inditam; et inventio similiter *latentis schematismi* corporum quiescentium et non in motu.

II.

Quam infeliciter se habeat scientia humana, quæ in usu est, etiam ex illis liquet, quæ vulgo asseruntur. Recte ponitur; "Vere scire, esse per causas scire." Etiam non male constituuntur causæ quatuor; materia, forma, efficiens, et finis. At ex his causa finalis tantum abest ut prosit, ut etiam scientias corrumpat, nisi in hominis actionibus. Formæ inventio habetur pro desperata. Efficiens vero, et materia (quales quæruntur et recipiuntur, remotæ scilicet, absque *latenti processu* ad formam) res perfunctoriæ sunt et superficiales, et nihili fere ad scientiam veram et activam. Neque tamen obliti sumus, nos superius notasse et correxisse errorem mentis humanæ, in deferendo formas primas essentiæ. Licet enim in natura nihil vere existat præter corpora individua, edentia actus puros individuos ex lege; in doctrinis tamen, illa ipsa lex, ejusque inquisitio, et inventio, atque explicatio, pro fundamento est tam ad sciendum quam ad operandum. Eam autem *legem*, ejusque *paragraphos*, formarum nomine intelligimus; præsertim cum hoc vocabulum invaluerit, et familiariter occurrat.

III.

Qui causam alicujus naturæ (veluti albedinis aut caloris) in certis tantum subjectis novit; ejus scientia imperfecta est. Et qui effectum super certas tantum materias (inter eas, quæ sunt susceptibiles) inducere potest; ejus potentia pariter imperfecta est. At qui efficientem et materialem causam tantummodo novit (quæ causæ fluxæ sunt, et nihil aliud, quam vehicula et causæ formam deferentes in aliquibus) is ad nova inventa, in materia aliquatenus simili et præparata, pervenire potest; sed rerum terminos altius fixos non movet. At qui formas novit, is naturæ unitatem in materiis dissimillimis complectitur; itaque quæ adhuc facta non sunt, qualia nec naturæ vicissitudines, neque experimentales industriæ, neque casus ipse, in actum unquam perduxissent, neque cogitationem humanam subitura fuissent; detegere et producere potest. Quare ex formarum inventione sequitur contemplatio vera et operatio libera.

IV.

Licet viæ ad potentiam, atque ad scientiam humanam, conjunctissimæ sint et fere eædem; tamen propter perniciosam et inveteratam consuetudinem versandi in abstractis, tutius omnino est ordiri et excitare scientias ab iis fundamentis, quæ in ordine sunt ad partem activam, atque ut illa ipsa partem contemplativam signet et determinet. Videndum itaque est ad aliquam naturam super corpus datum generandam et superinducendam, quale quis præceptum, aut qualem quis directionem aut deductionem maxime optaret; idque sermone simplici et minime abstruso.

Exempli gratia; si quis argento cupiat superinducere flavum colorem auri, aut augmentum ponderis (servatis legibus materiæ) aut lapidi alicui non diaphano diaphaneitatem, aut vitro tenaeitatem, aut corpori alicui non vegetabili vegetationem; videndum (inquam) est, quale quis præceptum aut deductionem potissimum sibi dari exoptet. Atque primo, exoptabit aliquis proculdubio sibi monstrari aliquid hujusmodi, quod opera non frustret, neque experimento fallat. Secundo, exoptabit quis aliquid sibi præscribi, quod ipsum non astringat et coërceat ad media quædam, et modos quosdam operandi particulares. Fortasse enim destituetur, nec habebit facultatem et commoditatem talia media comparandi et procurandi. Quod si sint et alia media, et alii modi (præter illud præceptum) progignendæ talis naturæ; ea fortasse ex iis erunt quæ sunt in operantis potestate; a quibus nihilominus per angustias præcepti exeludetur, nec fructum capiet. Tertio, optabit aliquid sibi monstrari, quod non sit æque difficile, ac illa ipsa operatio, de qua inquiritur, sed propius accedat ad praxin.

Itaque de præcepto vero et perfecto operandi pronunciatum erit tale; "Ut sit certum, liberum, et disponens, sive in ordine ad actionem." Atque hoc ipsum idem est cum inventione formæ veræ. Etenim forma naturæ alicujus talis est, ut, ea posita, natura data infallibiliter seqoatur. Itaque adest perpetuo, quando natura illa adest, atque eam oniversaliter affirmat, atque inest omni. Esdem forma talis est, ut ea amota, natura data infallibiliter fugiat. Itaque abest perpetuo, quando natura illa abest, eamque perpetuo abnegat, atque inest soli. Postremo, forma vera talis est, ut naturam datam ex fonte aliquo essentiæ dedueat, quæ inest pluribus, et notior est naturæ (ut loquuntor) quam ipsa forma. Itaque de axiomate vero et perfecto sciendi pronunciatum et præeeptum tale est; "Ut inveniatur natura alia, quæ sit cum natura data eonvertibilis, et tamen sit limitatio naturæ notioris instar generis veri." Ista autem duo pronunciata, activum et contemplativum, res eadem sunt; et quod in operando utilissimum, id in sciendo verissimum.

V.

At præceptum sive axioma de transformatione eorporum, doplieis est generis. Primum intuetur eorpus, ut turmam sive conjugationem naturarum simplicium, ot in aoro hæc eonveniont; qnod sit flavum; quod sit ponderosum, ad pondus tale; quod sit malleabile, aot ductile, ad extensiooem talem; quod non fiat volatile, nec deperdat de quanto suo per ignem; quod fluaf fluore tali; quod separetur et solvatur modis talibus; et similiter de eæteris naturis, quæ in auro concurrunt. Itaque hujusmodi axioma rem deducit ex formis naturarum simplicium. Nam qui formas et modos novit superindncendi flavi, ponderis, ductilis, fixi, fluoris, solutionom, et sic de reliqnis, et eorum graduationes et modos; videbit et curabit, ut ista eonjungi possint in aliquo eorpore, unde sequatur transformatio in aurum. Atqoe hoc genus aperandi pertinet ad actionem primariam. Eadem enim est ratio generandi naturam unam aliquam simplieem, et plures; nisi quod aretetur magis et restringatur homo in operando, si plures requirantur propter difficultatem tot naturas coadunandi; qnæ nun faeile eonveniunt, nisi per vias naturæ tritas et ordinarias. Uteunque tamen dicendum est, quod iste modus operandi (qui naturas intuetur simplices, licet in eorpore eoncreto) procedat ex iis, quæ in natura sunt constantia, et æterna, et catholica, et latas præbeat potentiæ humanæ vias, quales (ut nune sunt res) eogitatio humana vix capere aut repræsentare possit.

At secundum genus axiomatis (quod a *latentis processus* inventione pendet) non per naturas simplices procedit, sed per eonereta eorpora, quemadmodum in natura inveniontur cursu ordinario. Exempli gratia, in casu ubi fit inquisitio, ex quibus initiis, et quo modo, et quo processu, aurum, aut aliud quodvis metallom, aut lapis generetur, a primis menstruis aut rudimentis suis, usque ad mineram perfectam: aut similiter, quo processu herbæ generentur, a primis eoneretionibus sueeorum in terra, aut a seminibus, usque ad plantam formatam, cum universa illa snccessione motus, et diversis et continuatis naturæ nixibus; similiter, de generatione ordinatim explieata animaliom, ab initu ad partum; et similiter de eorporibus aliis.

Enimvero neque ad generationes eorporum tantum speetat hæc inquisitio, sed etiam ad alios motus et opificia naturæ. Exempli gratia; in casu ubi fit inquisitio de universa serie et continuatis actionibus alimentandi, a prima receptione alimenti ad assimilationem perfectam; aut similiter de motu voluntario in animalibus, a prima impressione imaginationis et continuatis nixibus spiritus, usque ad flexiones et motus artuum; aut de explicato motu linguæ, et labiorum, et instrumentorum reliquorum, usque ad editionem vocum articulatarum. Nam hæc qnoque speetant ad naturas eoncretas, sive eollegiataa et in fabrica; et intuentur veluti consuetudines naturæ particulares et speciales, non leges fundameotales et eommunes, qoæ constitoont formas. Veruntamen omnino fatendom est rationem istam videri expeditiorem, et magis sitam in propinquo; et spem injieere magis, quam illam primariam.

At pars operativa similiter, quæ huic parti contemplativæ respondet, operationem extendit et promovet, ab iis, quæ ordinario in natura inveniuntur, ad quædam proxima, aut a proximis non admodum remota; sed altiores et radicales operationes super naturam pendent utique ab axiomatibus priomariis. Qninetiam ubi non datur homini facultas operandi, sed tantum sciendi, ut in cœlestibus (neque enim conceditur homini operari in cœlestia, aut ea immutare, aut transformare) tamen inqoisitio facti ipsius, sive veritatis rei, non minus quam eognitio eausarum et consensuum, ad primaria illa et catholica axiomata de naturis simplicibus (veluti de natura rotationis spontaneæ, attraetionis sive virtutis magnetieæ, et aliorum eomplorium, quæ magis commonia sunt, quam ipsa eœlestia) refertur. Neque enim speret aliquis terminare qnæstionem, utrum in motu diurno revera terra aut cœlum rotet; nisi naturam rotationis spontaneæ prius eomprehenderit.

VI.

Latens autem *processus*, de quo loquimur, longe alia res est, quam animis hominum (quoliter nunc obsidentur) facile possit occurrere. Neque enim intelligimus mensuras quasdam, aut signa, aut scalas processus, in corporibus spectabiles; sed plane processum continuatum, qui maxima ex parte sensum fugit.

Exempli gratia; in omni generatione et transformatione corporum, inquirendum, quid deperdatur et evolet, quid maneat, quid accedat; quid dilatetur, quid contrahatur; quid uniatur, quid separetur; quid continuetur, quid abscindatur; quid impellat, quid impediat; quid dominetur, quid succumbat; et alia complura.

Neque hic rursus, hæc tantum in generatione aut transformatione corporum quærenda sunt; sed et in omnibus aliis alterationibus et motibus similiter inquirendum, quid antecedat, quid succedat; quid sit ineitatius, quid remissius; quid motum præbeat, quid regat; et hujusmodi. Ista vero omnia scientiis (quæ nunc pinguissima Minerva, et prorsus inhabili, contexuntur) incognita sunt et intacta. Cum enim omnis actio naturalis per minima transigatur, aut saltem per illa, quæ sunt minora, quam ut sensum feriant; nemo se naturam regere aut vertere posse speret, nisi illa debito modo comprehenderit et notaverit.

VII.

Similiter, inquisitio et inventio *latentis schematismi* in corporibus res nova est; non minus quam inventio *latentis processus* et formæ. Versamur enim plane adhuc in atriis naturæ, neque ad interiora paramus aditum. At nemo corpus datum nova natura dotare, vel in novum corpus felieiter et apposite transmutare potest, nisi corporis alterandi aut transformandi bonam habuerit notitiam. In modos enim vanos incurret, aut saltem difficiles et perversos, nec pro corporis natura, in quod operator. Itaque ad hoc etiam via plane est aperienda et munienda.

Atque in anatomia corporum organicorum (qualia sunt hominis et animalium) opera sane recte et utiliter insumitur, et videtur res subtilis, et scrutinium naturæ bonum. At hoc genus anatomiæ spectabile est, et sensui subjectum, et in corporibus tantum organicis locum habet. Verum hoc ipsum obvium quiddam est et in promptu situm, præ anatomia vera *schematismi latentis* in corporibus, quæ habentur pro similaribus; præsertim in rebus specificatis, et earum partibus, ut ferri, lapidis; et partibus similaribus plantæ, animalis, veluti radicis, folii, floris, carnis, sanguinis, ossis, etc. At etiam in hoc genere non prorsus cessavit industria humana; hoc ipsum enim innuit separatio corporum similarium per distillationes, et alios solutionum modos, ut dissimilaritas compositi per congregationem partium homogenearum appareat. Quod etiam ex usu est, et facit ad id quod quærimus; licet sæpius res fallax sit: quia complures naturæ separationi imputantur et attribuuntur, ac si prius substitissent in composito; quas revera ignis et calor, et alii modi apertionum de novo indunt, et superinducunt. Sed et hæc quoque parva pars est operis, ad inveniendum *schematismum* verum in composito; qui *schematismus* res est longe subtilior, et accuratior, et ab operibus ignis potius confunditur, quam eruitur et elucescit.

Itaque facienda est corporum separatio et solutio; non per ignem certe, sed per rationem et *inductionem* veram, cum experimentis auxiliaribus; et per comparationem ad alia corpora, et reductionem ad naturas simplices, et earum formas, quæ in composito conveniunt et complicantur; et transeundum plane a Vulcano ad Minervam, si in animo sit veras corporum texturas et *schematismos* (unde omnis occulta atque, ut vocant, specifica proprietas et virtus in rebus pendet; unde etiam omnis potentis alterationis et transformationis norma edueitur) in lucem protrahere.

Exempli gratia; inquirendum, quid sit in omni corpore spiritus, quid essentiæ tangibilis; atque ille ipse spiritus, utrum sit copiosus et turgeat, an jejunus et paucos; tenuis aut crassior; magis aëreus aut igneus; aeris aut deses; exilis aut robustos; in progressu aut in regressu; abscissus aut continuatus; consentiens cum externis et ambientibus, aut dissentiens, etc. Et similiter, essentia tangibilis (quæ non paueiores recipit differentias, quam spiritus) atque ejus villi et fibræ, et omnimoda textura. Rursus autem collocatio spiritus per corpoream molem, ejusque pori, meatus, venæ, et cellulæ, et rudimenta sive tentamenta corporis organici, sub eadem inquisitionem eadunt. Sed et in his quoque, atque adeo in omni *latentis schematismi* inventione, lux vera et clara ab axiomatibus primariis immittitur, quæ certe caliginem omnem et subtilitatem discutit.

VIII.

Neque propterea res deducetur ad atomum, qui præsupponit vacuum et materiam non fluxam (quorum utrumque falsum est) sed ad particulas veras, quales inveniuntur. Neque rursus est, quod exhorreat quispiam istam subtilitatem, ut inexplicabilem; sed contra, quo magis vergit inquisitio ad naturas simplices, eo magis omnia erunt sita in plano et perspicuo; translato negotio a multipliei in simplex; et ab incommensurabili ad commensurabile; et a surdo ad computabile; et ab infinito et vago ad definitum et certum; ut fit in elementis literarum, et tonis concentuum. Optime autem cedit inquisitio naturalis, quando physicum terminatur in mathematico. At rursus multitudinem aut fractiones nemo reformidet: in rebus enim quæ per numeros transiguntur, tam facile quis posuerit aut cogitaverit millenarium, quam unum; aut millesimam partem unius, quam unum integrum.

IX.

Ex duobus generibus axiomatum, quæ superius posita sunt, oritur vera divisio philosophiæ et scientiarum; translatis vocabulis receptis (quæ ad indicationem rei proxime accedunt) ad sensum nostrum. Videlicet, ut inquisitio *formarum*, quæ sunt (ratione certe, et sua lege) æternæ et immobiles, et constituat *metaphysicam*; inquisitio vero *efficientis*, et *materiæ*, et *latentis processus*, et *latentis schematismi* (quæ

omnia cursum naturæ communem et ordinarium, non leges fundamentales et æternas respiciunt) constituat *physicam*; atque his subordinentur similiter practicæ duæ; *physicæ mechanica*; *metaphysicæ* (perpurgato nomine) *magia*, propter latas ejus vias, et majus imperium in naturam.

X.

Posito itaque doctrinæ scopo, pergendum ad præcepta; idque ordine minime perverso aut perturbato. Atque indicia de *interpretatione naturæ* complectuntur partes in genere duas; primam, de educendis aut excitandis axiomatibus ab experientia; secundam, de deducendis aut derivandis experimentis novis ab axiomatibus. Prior autem trifariam dividitur; in tres nempe ministrationes; ministrationem ad sensum; ministrationem ad memoriam; et ministrationem ad mentem sive rationem.

Primo enim paranda est *historia naturalis* et *experimentalis*, sufficiens et bona; quod fundamentum rei est; neque enim fingendum aut exeogitandum, sed inveniendum, quid natura faciat, aut ferat.

Historia vero *naturalis* et *experimentalis* tam varia est et sparsa, ut intellectum confundat et disgregct, nisi sistatur et comparet ordine idoneo. Itaque formandæ sunt *tabulæ* et *co-ordinationes instantiarum*, tali modo et instructione, ut in eas agere possit intellectus.

Id quoque licet fiat; tamen intellectus sibi permissus, et sponte movens, incompetens est et inhabilis ad opificium axiomatum, nisi regatur et muniatur. Itaque tertio, adhibenda est *inductio* legitima et vera, quæ ipsa *clavis* est *interpretationis*. Ineipiendum autem est a fine, et retro pergendum ad reliqua.

XI.

Inquisitio formarum sic procedit; super naturam datam primo facienda est *comparentia ad intellectum* omnium *instantiarum* notarum, quæ in eadem natura conveniunt, per materias licet dissimillimas. Atque hujusmodi collectio facienda est historice, absque contemplatione præfestina, aut subtilitate aliqua majore. Exempli gratia; in inquisitione de forma calidi.

INSTANTIÆ CONVENIENTES IN NATURA CALIDI.

1. Radii solis, præsertim æstate et meridie.
2. Radii solis reflexi et constipati, ut inter montes, aut per parietes, et maxime omnium in speculis comburentibus.
3. Meteora ignita.
4. Fulmina comburentia.
5. Eructationes flammarum ex eavis montium, etc.
6. Flamma omnis.
7. Ignita solida.
8. Balnea calida naturalia.
9. Liquida ferventia aut calefacta.
10. Vapores et fumi ferventes, atque aër ipse, qui fortissimum et furentem suscipit calorem, si coneludatur; ut in reverberatoriis.
11. Tempestates aliquæ sudæ per ipsam constitutionem aëris, non habita ratione temporis anni.
12. Aër conclusus et subterraneus in cavernis nonnullis, præsertim hieme.
13. Omnia villosa, ut lana, pelles animalium, et plumagines, habent nonnihil teporis.
14. Corpora omnia, tam solida quam liquida, et tam densa quam tenuia (qualis est ipse aër) igni ad tempus approximata.
15. Scintillæ ex silice et chalybe per fortem pereussionem.
16. Omne corpus fortitur attritum, ut lapis, lignum, pannus, etc. adeo ut temones, et axes rotarum, aliquando flamman concipiant; et mos excitandi ignis apud Indos occidentales fuerit per attritionem.
17. Herbæ virides et humidæ simul conclusæ et contusæ, ut rosæ, pisæ in corbibus; adeo ut fœnum, si repositum fuerit madidum, sæpe conceipiat flammam.
18. Calx viva, aqua aspersa.
19. Ferrum, eum primo dissolvitur per aquas fortes in vitro, idque absque ulla admotione ad ignem; et stannum similiter, etc. sed non adeo intense.
20. Animalia, præsertim et perpetuo per interiora; licet in insectis calor ob parvitatem corporis non deprehendatur ad tactum.
21. Fimus equinus, et hujusmodi excrementa animalium recentia.
22. Oleum forte sulphuris et vitrioli exequitur opera caloris, in linteo adurendo.
23. Oleum origani, et hujusmodi, exequitur opera caloris in adurendis ossibus dentium.
24. Spiritus vini fortis et bene rectificatus exequitur opera caloris; adeo ut si albumen ovi in eum injiciatur, concrescat et albescat, fere in modum albuminis cocti; et panis injectus torrefiat et incrustetur, ad modum panis tosti.
25. Aromata et herbæ calidæ, ut draeunculus, nasturtium vetus, etc. licet ad manum non sint calida (nec integra, nec pulveres eorum) tamen ad linguam et palatum parum masticata, percipiuntur calida, et quasi adurentia.
26. Acetum forte, et omnia acida, in membro ubi non sit epidermis, ut in oculo, lingua, aut aliqua alia parte vulnerata, et eute detecta, dolorem cient, non multum discrepantem ab eo, qui inducitur a calido.
27. Etiam frigora acria et intensa indueunt sensum quendam ustionis:

" Nam Boreæ penetrabile frigus adurit."

28. Alia.
Hanc *Tabulum essentiæ et præsentiæ* appellare consuevimus.

XII.

Secundo, facienda est *comparentia* ad intellectum *instantiarum*, quæ natura data privantur; quia forma (ut dictum est) non minus abesse debet, ubi natura data abest; quam adesse, ubi adest. Hoc vero infinitum esset in omnibus.

Itaque subjungenda sunt negativa affirmativis, et privationes inspiciendæ tantum in illis subjectis, quæ sunt maxime eognata illis alteris, in quibus natura

data inest et comparet. Hanc *tabulam declinationis* sive *absentiæ in proximo* appellare consuevimus.

INSTANTIÆ IN PROXIMO, QUÆ PRIVANTUR NATURA CALIDI.

Ad instantiam tam affirmativam. Instantia in negativa vel subjunctivo.

1. Lunæ et stellarum, et cometarum radii, non inveniuntur calidi ad tactum: quinetiam observari solent acerrima frigora in plenilniis. At stellæ fixæ majores, quando sol eas subit, aut iis approximatur, existimantur fervores solis augere et intendere; ut fit, cum sol sistitur in leone, et diebus canicularibus.

Ad 2am.

2. Radii solis in media (quam vocant) regione aëris non calefaciunt; cujus ratio vulgo non male redditur; quia regio illa nec satis appropinquat ad corpus solis, unde radii emanant, nec etiam ad terram, unde reflectuntur. Atque hoc liquet ex fastigiis montium (nisi sint prælti) ubi nives perpetuo durant. Sed contra notatum est a nonnullis, quod in cacumine Picus de Tenariph, atque etiam in Andis Peruviæ, ipsa fastigia montium nive destituta sint; nivibus jacentibus tantum inferius in ascensu. Atque insuper aër illis ipsis verticibus montium deprehenditur minime frigidus, sed tenuis tantum et acer; adeo ut in Andis pungat et vulneret oculos per nimiam acrimoniam, atque etiam pungat os ventriculi, et inducat vomitum. Atque ab antiquis notatum est, in vertice Olympi tantam fuisse aëris tenuitatem, ut necesse fuerit illis, qui eo ascenderant, secum deferre spongias aceto et aqua madefactas, easque ad os et nares subinde apponere; quia aër ob tenuitatem non sufficiebat respirationi. In quo vertice etiam relatum est, tantam fuisse serenitatem et tranquillitatem a pluviis, et nivibus, et ventis; ut sacrificantibus literæ descriptæ digito in cinceribus sacrificiorum super aram Jovis, manerent in annum proximum absque ulla perturbatione. Atque etiam hodie ascendentes ad verticem Picus de Tenariph, eo vadunt noctu et non interdiu; et paulo post ortum solis monentur et excitantur a ducibus suis, ut festinent descendere, propter periculum (ut videtur) a tenuitate aëris, ne solvat spiritus et suffocet.

Ad instantiam 2am affirmativam.

3. Reflexio radiorum solis, in regionibus prope circulos polares, admodum debilis et inefficax invenitur in calore; adeo ut Belgæ, qui hibernarunt in Nova Zembla, cum expectarent navis suæ liberationem et deobstructionem a glaciali mole (quæ eam obsederat) per initia mensis Julii spe sua frustrati sint, et coacti scaphæ se committere. Itaque radii solis directi videntur parum possc, etiam super terram planam; nec reflexi etiam, nisi multiplicentur et uniantur; quod fit cum sol magis vergit ad perpendiculum; quia tum incidentia radiorum facit angulos acutiores; ut lineæ radiorum sint magis in propinquo: ubi contra in magnis obliquitatibus solis anguli sunt valde obtusi, et proinde lineæ radiorum magis distantes. Sed interim notandum est, multas esse posse operationes radiorum solis, atque etiam ex natura calidi, quæ non sunt proportionatæ ad tactum nostrum; adeo ut respectu nostri non operantur usque ad calefactionem, sed respectu aliorum nonnullorum corporum exequuntur opera calidi.

Ad 2am.

4. Fiat hujusmodi experimentum. Accipiatur speculum fabricatum contra ac fit in speculis comburentibus; et interponatur inter manum et radios solis; et fiat observatio, utrum minuat calorem solis, quemadmodum speculum comburens eundem auget et intendit. Manifestum est enim quoad radios opticos, pront fabricatur speculum in densitate inæquali respectu medii et laterum, ita apparere simulacra magis diffusa, aut magis contracta. Itaque idem videndum in calore.

Ad 2am.

5. Fiat experimentum diligenter, utrum per specula comburentia, fortissime et optime fabricata, radii lunæ possint excipi et colligi in aliquem vel minimum gradum teporis. Is vero gradus teporis, si fortasse nimis subtilis et debilis fuerit, ut ad tactum percipi et deprehendi non possit; confugiendum erit ad vitra illa, quæ indicant constitutionem aëris calidam aut frigidam; ita ut radii lunæ per speculum comburens incidant et jaciantur in summitatem vitri hujusmodi; atque tum notetur, si fiat depressio aquæ per teporem.

Ad 2am.

6. Practicetur etiam vitrum comburens super calidum, quod non sit radiosum aut luminosum; ut ferri et lapidis calefacti, sed non igniti; aut aquæ ferventis, aut similium: et notetur, utrum fiat augmentum et intentio calidi, ut in radiis solis.

Ad 2am.

7. Practicetur etiam speculum comburens in flamma communi.

Ad 3am.

8. Cometarum (si et illos numerare inter meteora libuerit) non deprehenditur constans aut manifestus effectus in augendis ardoribus anni, licet siccitates sæpius inde sequi notatæ sint. Quinetiam trabes, et columnæ lucidæ, et chasmata, et similia, apparent sæpius temporibus hibernis, quam æstivis; et maxime per intenssisima frigora, sed conjuncta cum siccitatibus. Fulmina tamen et coruscationes et tonitrua raro eveniunt hiemc, sed sub tempus magnorum fervorum. At stellæ (quas vocant) cadentes, existimantur vulgo magis constare ex viscosa aliqua materia splendida et accensa, quam esse naturæ igneæ fortioris. Sed de hoc inquiratur ulterius.

Ad 4am

9. Sunt quædam coruscationes, quæ præbent lumen, sed non urunt: eæ vero semper fiunt sine tonitru.

Ad 5am.

10. Eructationes et eruptiones flammarum inveniuntur non minus in regionibus frigidis, quam calidis; ut in Islandia et Greenlandia: quemadmodum et arbores per regiones frigidas magis sunt quandoque inflammabiles, et magis piceæ ac recinosæ, quam per regiones calidas: ut fit in abiete, pinu, et reliquis: verum in quali situ et natura soli hujus-

modi eruptiones fieri soleant, ut possimus *affirmativæ* subjungere *negativam*, non satis quæsitum est.

Ad 6am. 11. Omnis flamma perpetuo est ealida magis aut minus, neque omnino subjungitur *negativa*. Et tamen referunt ignem fatoum (quem vocant) qui etiam aliquando impingitur in parietem, non multum habere ealoris; fortasse iostar flammæ spiritos vini, quæ elemens et lenis est. Sed adhue lenior videtur ea flamma, quæ in nonnullis historiis fidis et gravibus invenitur apparuisse circa capita et comas puerorum et virginum; quæ nullo modo comas adurebat, sed molliter eircum eas trepidabat. Atque eertissimum est, circa equum in itinere sudantem, noctu et suda tempestate, apparuisse quandoque eoruscationem quandam absque manifesto calore. Atque pàueis abhinc annis notissimum est, et pro miraculo quasi habitum, gremiale cujusdam puellæ paulo motum aut frieatum eoruscasse; quod fortasse factum est ob alumen aut sales, quibus gremiale tinctum erat, paulo crassius hæreotia et inerustata, et ex fricatione fracta. Atque certissimum est, saccharum omne, sive conditum (ut vocant) sive simplex, modo sit durius, in tenebris fractum aut eultello scalptum coruscare. Similiter aqua marina et salsa, noctu interdum invenitur remis fortiter percussa coruscare. Atque etiam in tempestatibus spuma maris fortiter agitata noctu coruscat; quam coruscationem Hispani pulmonem marinum vocant. De illa flamma autem, quam antiqui oantæ vocabant Castorem et Polluecm, et moderni Focum Sancti Ermi, qualem calorem habeat, non satis quæsitum est.

Ad instantiam 7am affirmativam. 12. Omne ignitum ita ut vertatur in ruborem ignenm, etiam sine flamma perpetuo calidum est; neque huic *affirmativæ* subjungitur *negativa;* sed quod in proximo est, videtur esse lignum putre; quod splendet noctu, neqne tamen deprehenditur calidum: et squamæ piscium putrescentes, quæ etiam splendent noctu, nec inveniontur ad tactum calidæ; neque etiam eorpus cicindelæ aut muscæ (quam vocant luciolam) ealidum ad tactum deprehenditur.

Ad 8am. 13. De balneis calidis, in quo situ et natura soli emanare soleant, non satis quæsitum est: itaque non subjungitur *negativa*.

Ad 9am. 14. Liquidis ferventibus subjungitur *negativa* ipsius liquidi in natura sua. Nullum enim invenitur liquidum tangibile, quod sit in natura sua et maneat constanter calidum; sed superindueitur ad tempus tantum calor, ut natura ascititia; adeo ut quæ potestate et operatione sunt maxime ealida, ut spiritus vini, olea aromatum chemica, etiam olea vitrioli et sulphuris, et similia, quæ paulo post adurunt, ad primum tactum sint frigida. Aqua autem balneorum naturalium, exeepta in vas aliquod, et separata a fontibus suis, defervescit perinde ac aqua igne ealefacta. At verum est corpora oleosa ad tactum paulo minus esse frigida, quam aqnea; ut oleum minus quam aqua, serieum minus quam linteum. Verum hoc pertinet ad *Tabulam graduum* de frigido.

Ad 10am. 15. Similiter vapori fervido subjungitur *negativa* naturæ ipsius vaporis, qualis apud nos invenitur. Etenim exhalationes ex oleosis, licet faeile ioflammabiles, tamen non inveniuntur calidæ, nisi a corpore calido reeenter exhalaverint.

Ad 10am. 16. Similiter naëri ipsi ferventi subjongitur *negativa* natura aëris ipsios. Neque enim invenitur apud nos aër ealidus; nisi fuerit ant conclusus, aut attritus, aut manifeste ealefaetus a sole, igne, aut aliquo alio corpore calido.

Ad 11am. 17. Subjungitur *negativa* tempestatum frigidarum magis, quam pro ratione temporis anni, quæ eveniunt apud nos flante Euro et Borea: quemadmodum et contrariæ tempestates eveninnt flante Austro et Zephyro. Etiam inclinatio ad pluviam (præsertim temporibus hiemalibus) eomitatur tempestatem tepidam: at gelu contra frigidam.

Ad 12am. 18. Subjungitur *negativa* aëris conclusi io cavernis tempore æstivo. At de aëre eoncluso omnino diligeotius inquirendum. Primo enim non absque causa in dubitationem venit, qualis sit natura aëris, qoatenos ad calidom et frigidum in natura sua propria. Recipit enim aër ealidum manifesto ex impressione cœlestium; frigidum autem fortasse abexpiratione terræ; et rursus in media (quam vocant) regione aëris, a vaporibus frigidis et nivibus: ut nullum judieium fieri possit de aëris natura per aërem, qui foras est et sub dio, sed verius foret judieium per aërem conclusum. Atqui opus est etiam, ut aër coneludatur in tali vase et materia, quæ nec ipsa imbnat aërem calido vel frigido ex vi propria, nee fucile admittat vim aëris extranei. Fiat itaque experimentum per ollam figularem multiplici corio obduetam ad muniendam ipsam ab aëre extraneo, facta mora per tres aut quatuor dies in vase bene oceluso: deprehensio autem fit post apertionem basis, vel per manum, vel per vitrum graduum ordine applieatum.

Ad 13am. 19. Subest similiter dubitatio, utrum tepor in lana, et pellibus, et plumis, et hujusmodi, fiat ex quodam exili ealore inhærente, qnatenus excernuntur ab animalibus; aut etiam ob pinguedioem quandam et oleositatem, quæ sit naturæ congruæ cum tepore; vel plane ob conclusionem et fraetionem aëris, ut in artieulo præcedente dietum est. Videtur enim omnis aër, abscissus a eontinuitate aëris forinseci, habere nonnihil teporis. Itaque fiat experimentum in fibrosis, quæ fiunt ex lino; non ex lana, aut plumis, aut serico, quæ exeernuntur ab animatis. Notandum est etiam, omnes pulveres (ubi manifesto includitur aër) minus esse frigidos, quam eorpora integra ipsorum: qoemadmodum etiam existimamus, omnem spumam (utpote quæ aërem eontineat) minus esse frigidam, quam liquorem ipsum.

Ad 14am

20. Huic non subjungitur *negativa*. Nihil enim reperitur apud nos sive tangibile, sive spiritale, quod admotum igni non excipiat calorem. In eo tamen differunt, quod alia excipiant calorem citius, ut aër, oleum, et aqua; alia tardius, ut lapis et metalla. Verum hoc pertinet ad *tabulam graduum*.

Ad 15am.

21. Huic instantiæ non subjungitur *negativa* alia, quam ut bene notetur, non excitari scintillas ex silice et chalybe, ant alia aliqua substantia dura, nisi ubi excutiuntur minutiæ aliquæ ex ipsa substantia lapidis vel metalli; neque aërem attritum unquam per se generare scintillas, ut vulgo putant: quin et ipsæ illæ scintillæ ex pondere corporis igniti magis vergunt deorsum, quam sursum, et in extinctione redeunt in quandam fuliginem corpoream.

Ad 16am.

22. Existimamus huic instantiæ non subjungi *negativam*. Nullum enim invenitur apud nos corpus tangibile, quod non ex attritione manifesto calescat; adeo ut veteres somniarent non in esse cœlestibus aliam viam aut virtutem calefaciendi, nisi ex attritione aëris per rotationem rapidam et incitatam. Verum in hoc genere ulterius inquirendum est, utrum corpora, quæ emittuntur ex machinis (qualia sunt pilæ ex tormentis) non ex ipsa percussione contrahant aliquem gradum caloris; adeo ut, postquam deciderint, inveniantur nonnihil calida. At aër motus magis infrigidat, quam calefacit; ut in ventis, et follibus, et flatu oris contracti. Verum hujusmodi motus non est tam rapidus, ut excitet calorem; et fit secundum totum, non per particulas; ut mirum non sit, si non generet calorem.

Ad instantiam 17am. affirmativam.

23. Circa hanc instantiam facienda est inquisitio diligentior. Videntur enim herbæ et vegetabilia viridia et humida aliquid habere in se occulti caloris. Ille vero calor tam tenuis est, ut in singulis non percipiatur ad tactum: verum postquam illa adunata sint et conclusa, ut spiritus ipsorum non expiret in aërem, sed se invicem foveat; tum vero oritur calor manifestus, et nonnunquam flamma in materia congrua.

Ad 18am.

24. Etiam circa hanc instantantiam diligentior facienda est inquisitio. Videtur enim calx viva, aqua aspersa, concipere calorem, vel propter unionem caloris, qui antea distrahebatur (ut ante dictum est de herbis conclusis) vel ob irritationem et exasperationem spiritus ignei ab aqua, ut fiat quidam conflictus et antiperistasis. Utra vero res sit in causa, facilius apparebit, si loco aquæ immittatur oleum. Oleum enim æque ac aqua valebit ad unionem spiritus inclusi, sed non ad irritationem. Etiam faciendum est experimentum latius tam in cineribus et calcibus diversorum corporum, quam per immissionem diversorum liquorum.

Ad 19am.

25. Huic instantiæ subjungitur *negativa* aliorum metallorum, quæ sunt magis mollia et fluxa. Et enim bracteolæ auri, solutæ in liquorem per aquam regis, nullum dant calorem ad tactum in dissolutione: neque similiter plumbum in aqua forti. Neque etiam argentum vivum (ut memini) sed argentum ipsum parum excitat caloris, atque etiam cuprum (ut memini) sed magis manifesto stannum, atque omnium maxime ferrum et chalybs; quæ non solum fortem exitant calorem in dissolutione, sed etiam violentam ebullitionem. Itaque videtur calor fieri per conflictum, cum aquæ fortes penetrant et fodiunt, et divellunt partes corporis, et corpora ipsa resistunt. Ubi vero corpora facilius cedunt, vix excitatur calor.

Ad 20am.

26. Caroli animalium nulla subjungitur *negativa*, nisi insectorum (ut dictum est) ob parvitatem corporis. Etenim in piscibus collatis ad animalia terrestria magis notatur gradus caloris, quam privatio. In vegetabilibus autem et plantis nullus percipitur gradus caloris ad tactum, neque in lacrymis ipsorum, neque in medullis recenter apertis. At in animalibus magna reperitur diversitas caloris, tum in partibus ipsorum (alius est enim calor circa cor, alius in cerebro, alius circa externa) tum in accidentibus eorum, ut in exercitatione vehementi, et febribus.

Ad 21am.

27. Huic instantiæ vix subjungitur *negativa*. Quinetiam excrementa animalium non recentia manifeste habent calorem potentialem, ut cernitur in impinguatione soli.

Ad 22am, et 23am.

28. Liquores (sive aquæ vocentur, sive olea) qui habent magnam et intensam acrimoniam, exequuntur opera caloris in divulsione corporum, atque adustione post aliquam moram; sed tamen ad ipsum tactum manus non sunt calidi ab initio. Operantur autem secundum analogiam et poros corporis, cui adjunguntur. Aqua enim regis aurum solvit, argentum minime: at contra, aqua fortis argentum solvit, aurum minime: neutrum autem solvit vitrum; sic de cæteris.

Ad 24am.

29. Fiat experimentum spiritus vini in lignis, ac etiam in butyro, ant cera, aut pice; si forte per calorem suum ea aliquatenus liquefaciat. Etenim instantia vicesima quarta ostendit potestatem ejus imitativam caloris in incrustationibus: itaque fiat similiter experimentum in liquefactionibus. Fiat etiam experimentum per vitrum graduum sive calendare, quod concavum sit in summitate sua per exterius; et immittatur in illud concavum exterius spiritus vini bene rectificatus, cum operculo, ut melius contineat calorem suum; et notetur utrum per calorem suum faciat aquam descendere.

Ad 25am.

30. Aromata, et herbæ acres ad palatum, multo magis sumptæ interius, percipiuntur calida. Videndum itaque in quibus aliis materiis exequantur opera caloris. Atque referunt nautæ, cum cumuli et massæ aromatum diu conclusæ subito aperiuntur, periculum instare illis, qui eas primo agitant et extrahunt, a febribus et inflammationibus spiritus. Similiter fieri potcrit experimentum, utrum pulveres hujusmodi aromatum ant herbarum non arefaciant laridum et carnem suspensam super ipsos, veluti fumus ignis.

Ad 26am.

31. Acrimonia sive penetratio inest tam frigidis, qualia sunt acetum et oleum

vitrioli, quam calidus, qualia sunt oleum origani, et similia. Itaque similiter et in animatis cient dolorem, et in non animatis divellunt partes et consumunt. Neque huic instantiæ subjungitur *negativa*. Atque in animatis nullus reperitur dolor, nisi cum quodam sensu caloris.

Ad instantiam 32am affirmativam.

32. Communes sunt complures actiones et calidi et frigidi, licet diversa admodum ratione. Nam et nives puerorum manus videntur paulo post urere; et frigora tuentur carnes a putrefactione, non minus quam ignis; et calores contrahunt corpora in minus, quod faciunt et frigida. Verum hæc et similia opportunius est referre ad inquisitionem de frigido.

XIII.

Tertio facienda est *comparentia ad intellectum* instantiarum, in quibus natura, de qua fit inquisitio, inest secundum magis et minus; sive facta comparatione incrementi et decrementi in eodem subjecto, sive facta comparatione ad invicem in subjectis diversis. Cum enim forma rei sit ipsissima res; neque differat res a forma aliter, quam differunt apparens et existens, aut exterius et interius, aut in ordine ad hominem et in ordine ad universum; omnino sequitur, ut non recipiatur aliqua natura pro vera forma, nisi perpetuo decrescat, quando natura ipsa decrescet, et similiter perpetuo augeatur, quando natura ipsa augetur. Hanc itaque tabulam, *Tabulam graduum* sive *Tabulam comparativæ* appellare consuevimus.

TABULA GRADUUM, SIVE COMPARATIVÆ IN CALIDO.

Primo itaque dicemus de iis, quæ nullum prorsus gradum caloris habent ad tactum; sed videntur habere potentialem tantum quendam calorem, sive dispositionem et præparationem ad calidum. Postea demum descendemus ad ea, quæ sunt actu sive ad tactum calida, eorumque fortitudines et gradus.

1. In corporibus solidis et tangibilibus non invenitur aliquid quod in natura sua calidum sit originaliter. Non enim lapis aliquis, non metallum, non sulphur, non fossile aliquod, non lignum, non aqua, non cadaver animalis, inveniuntur calida. Aquæ autem calidæ in balneis videntur calefieri per accidens, sive per flammam aut ignem subterraneum, qualis ex Ætna et montibus aliis compluribus evomitur; sive ex conflictu corporum, quemadmodum calor fit in ferri et stanni dissolutionibus. Itaque gradis caloris in inanimatis, quatenus ad tactum humanum, nullus est; veruntamen illa gradu frigoris differunt: non enim æque frigidum est lignum ac metallum. Sed hoc pertinet ad tabulam graduum in frigido.
2. Attamen quoad potentiales calores et præparationes ad flammam, complura inveniuntur inanimata admodum disposita, ut sulphur, naphtha, petroleum.
3. Quæ antea incaluerunt, ut fimus equinus ex animali, aut calx, aut fortasse cinis, aut fuligo ex igne, reliquias latentes quasdam caloris prioris retinent. Itaque fiunt quædam distillationes et separationes corporum, per sepulturam in fimo equino; atque excitatur calor in calce per aspersionem aquæ; ut jam dictum est.
4. Inter vegetabilia non invenitur aliqua planta sive pars plantæ (veluti lacryma aut medulla) quæ sit ad tactum humanum calida. Sed tamen (ut superius dictum est) herbæ virides conclusæ calescunt; atque ad interiorem tactum, veluti ad palatum, aut ad stomachum, aut etiam ad exteriores partes post aliquam moram (ut in emplastris et unguentis) alia vegetabilia inveniuntur calida, alia frigida.
5. Non invenitur in partibus animalium, postquam fuerint mortuæ aut separatæ, aliquid calidum ad tactum humanum. Nam neque fimus equinus ipse, nisi fuerit conclusus et sepultus, calorem retinet. Sed tamen omnis fimus habere videtur calorem potentialem, ut in agrorum impinguatione. Et similiter, cadavera animalium hujusmodi habent latentem et potentialem calorem; adeo ut in cœmeteriis, ubi quotidie fiunt sepulturæ, terra calorem quendam occultum colligat, qui cadaver aliquod recenter impositum consumit longe citius, quam terra pura. Atque apud orientales traditur inveniri textile quoddam tenue et molle, factum ex avium plumagine, quod vi innata butyrum solvat et liquefaciat, in ipso leviter involutum.
6. Quæ impinguant agros, ut fimi omnis generis, creta, arena maris, sal, et similia, dispositionem nonnullam habent ad calidum.
7. Omnis putrefactio in se rudimenta quædam exilis caloris habet, licet non hucusque, ut ad tactum percipiatur. Nam nec ea ipsa, quæ putrefacta solvuntur in animalcula, ut caro, caseus, ad tactum percipiuntur calida; neque lignum putre, quod noctu splendet, deprehenditur ad tactum calidum. Calor autem in putridis quandoque se prodit per odores tetros et fortes.
8. Primus itaque caloris gradus ex iis, quæ ad tactum humanum percipiuntur calida, videtur esse calor animalium, qui bene magnam habet graduum latitudinem; nam infimus gradus (ut in insectis) vix ad tactum deprenditur; summus autem gradus vix attingit ad gradum caloris radiorum solis in regionibus et temporibus maxime ferventibus; neque ita acris est, quin tolerari possit a manu. Et tamen referunt de Constantio, aliisque nonnullis, qui constitutionis et habitus corporis admodum sicci fuerunt, quod acutissimis febribus correpti ita incaluerint, ut manum admotam aliquantulum urere visi sint.
9. Animalia, ex motu et exercitatione, ex vino et epulis, ex venere, ex febribus ardentibus, et ex dolore, augentur calore.
10. Animalia in accessibus febrium intermittentium, a principio, frigore et horrore corripiuntur; sed paulo post majorem in modum incalescunt; quod etiam faciunt a principio in causonibus, et febribus pestilentialibus.
11. Inquiratur ulterius de calore comparato in diversis animalibus, veluti piscibus, quadrupedibus, serpentibus, avibus; atque etiam secundum spe-

cies ipsorum, ut in leone, milvio, homine: nam ex vulgari opinione, pisces per interiora minus calidi sunt, aves autem maxime calidæ; præsertim columbæ, accipitres, struthiones.

12. Inquiratur ulterius de calore comparato in eodem animali secundum partes et membra ejus diversa. Nam lac, sanguis, sperma, ova, inveniuntur gradu modico tepida, et minus calida quam ipsa caro exterior in animali, quando movetur aut agitatur. Qualis vero gradus sit caloris in cerebro, stomacho, corde, et reliquis, similiter adhuc non est quæsitum.

13. Animalia omnia, per hiemem et tempestates frigidas, secundum exterius frigent; sed per interiora etiam magis esse calida existimantur.

14. Calor cœlestium etiam in regione calidissima, atque temporibus anni et diei calidissimis, non eum gradum caloris obtinet, qui vel lignum aridissimum, vel stramen, vel etiam linteum ustum incendat aut adurat, nisi per specula comburentia roboretur; sed tamen e rebus humidis vaporem excitare potest.

15. Ex traditione astronomorum ponuntur stellæ alim magis, aliæ minus calidæ. Inter planetas enim post Solem ponitur Mars calidissimus; deinde Jupiter, deinde Venus; ponuntur autem tanquam frigidi, Luna, et deinde omnium maxime Saturnus. Inter fixas autem ponitur calidissimus Sirius; deinde Cor leonis sive Regulus; deinde Canicula, &c.

16. Sol magis calefacit, quo magis vergit ad perpendiculum sive zenith; quod etiam credendum est de aliis planetis, pro modulo suo caloris; exempli gratia, Jovem magis apud nos calefacere, cum positus sit sub Cancro, aut Leone, quam sub Capricorno, aut Aquario.

17. Credendum est, solem ipsum et planetas reliquos magis calefacere in perigæis suis, propter propinquitatem ad terrem, quam in apogæis. Quod si eveniat, ut in aliqua regione sol sit simul in perigæo, et propius ad perpendiculum; necesse est, ut magis calefaciat, quam in regione ubi sol sit similiter in perigæo, sed magis ad obliquum. Adeo ut comparatio exaltationis planetarum notari debeat, prout ex perpendiculo aut obliquitate participet, secundum regionum varietatem.

18. Sol etiam, et similiter reliqui planetæ, calefacere magis existimantur, cum sint in proximo ad stellas fixas majores; veluti cum Sol ponitur in Leone, magis vicinus fit Cordi leonis, Caudæ leonis, et Spicæ virginis, et Sirio et Canículæ, quam cum ponitur in Cancro; ubi tamen magis sistitur ad perpendiculum. Atque credendum est, partes cœli majorem infundere calorem (licet ad tactum minime perceptibilem) quo magis ornatæ sint stellis, præsertim majoribus.

19. Omnino calor cœlestium augetur tribus modis; videlicet ex perpendiculo, ex propioquitate sive perigæo, et ex conjonctione sive consortio stellarum.

20. Magnum omnino invenitur intervallum inter calorem animalium, ac etiam radiorum cœlestium (prout ad nos deferuntur) atque flammam, licet lenissimam, atque etiam ignita omnia, atque insuper liquores, aut aërem ipsum, majorem in modum ab igne calefactum. Etenim flamma spiritus vini, præsertim rara, nec constipata, tamen potis est stramen, aut linteum, aut papyrum incendere; quod nunquam faciet calor animalis vel solis, absque speculis comburentibus.

21. Flammæ autem et ignitorum plurimi sunt gradus in fortitudine et debilitate caloris. Verum de his nulla est facta diligens inquisitio; ut necesse sit ista leviter transmittere. Videtur autem ex flammis illa ex spiritu vini esse mollissima; nisi forte ignis fatuus, aut flammæ, seu coruscationes ex sudoribus animalium, sint molliores. Hanc sequi opinamur flammam ex vegetabilibus levibus et porosis, ut stramine, scirpis, et foliis arefactis; a quibus non multum differre flammam ex pilis aut plumis. Hanc seqoitur fortasse flamma ex lignis, præsertim iis, quæ non multum habent ex resina aut pice; ita tamen ut flamma ex lignis, quæ parva sunt mole (quæ vulgo colligantur in fasciculos) lenior sit, quam quæ fit ex truncis arborum et radicibus. Id quod vulgo experiri licet in fornacibus, quæ ferrum excoquunt, in quibus ignis ex fascienlis et ramis arborum non est admodum utilis. Hanc sequitur (ut arbitramor) flamma ex oleo, et sevo, et cera, et hujusmodi oleosis et pinguibus, quæ sunt sine magna acrimonia. Fortissimus autem calor reperitur in pice et resina; atque adhuc magis in sulphure, et asphura, et naphtha, et petroleo, et salibus (postquam materia cruda eruperit) et in horum compositionibus, veluti pulvere tormentario, igne Græco (quem vulgo ignem ferum vocant) et diversis ejus generibus, quæ tam obstinatum habent calorem, ut ab aquis non facile extinguantur.

22. Existimamus etiam flammam, quæ resultat ex nonnullis metallis imperfectis, esse valde robustam et acrem. Verum de istis omnibus inquiratur ulterius.

23. Videtur autem flamma fulminum potentiorum has omnes flammas superare; adeo ut ferrum ipsum perfectum aliquando colliquaverit in guttas; quod flammæ illæ alteræ facere non possunt.

24. In ignitis autem diversi sunt etiam gradus caloris, de quibus etiam non facta est diligens inquisitio. Calorem maxime debilem existimamus esse ex linteo usto, quali ad flammæ excitationem uti solemus; et similiter ex ligno illo spongioso, aut funiculis arefactis, qui ad tormentorum accensionem adhibentur. Post hunc sequitur carbo ignitus ex lignis et anthracibus, atque etiam ex lateribus ignitis, et similibus. Ignitorum autem vehementissime calida existimamus esse metalla ignita, ut ferrum, et cuprum, et cætera. Verum de his etiam facienda est ulterior inquisitio.

25. Inveniuntur ex ignitis nonnulla longe calidiora, quam nonnullæ ex flammis. Multo enim calidius est et magis adureus ferrum ignitum, quam flamma spiritus vini.

26. Inveniuntor etiam ex illis, quæ ignita non sunt, sed tantum ab igne calefacta, sicut aquæ ferven-

tes, et aër conclusus in reverberatoriis, nonnulla, quæ superant calore multa ex flammis ipsis et ignitis.

27. Motus auget calorem; ut videre est in follibus et flatu; adeo ut duriora ex metallis non solvantur aut liquefiant per ignem mortuum aut quietum, nisi flatu excitetur.

28. Fiat experimentum per specula comburentia, in quibus (ut memini) hoc fit; ut si speculum ponatur (exempli gratia) ad distantiam spithamæ ab objecto combustibili, non tantopere incendat aut adurat, quam si positum fuerit speculum (exempli gratia) ad distantiam semispithamæ, et gradatim et lente trahatur ad distantiam spithamæ. Conus tamen et unio radiorum eadem sunt, sed ipse motus auget operationem caloris.

29. Existimantur incendia illa, quæ fiunt flante vento forti, majores progressus facere adversus ventum, quam secundum ventum; quia scilicet flamma resilit motu perniciore, vento remittente, quam procedit, vento impellente.

30. Flamma non emicat aut generatur, nisi detur aliquid concavi in quo flamma movere possit et ludere; præterquam in flammis flatuosis pulveris tormentarii, et similibus, ubi compressio et incarceratio flammæ auget ejus furorem.

31. Incus per malleum calescit admodum; adeo ut si incus fuerit laminæ tenuioris, existimemus illam per fortes et continuos ictus mallei posse rubescere, ut ferrum ignitum; sed de hoc fiat experimentum.

32. At in ignitis, quæ sunt porosa, ita ut detur spatium ad exercendum motum ignis, si cohibeatur hujusmodi motus per compressionem fortem, statim extinguitur ignis; veluti cum linteum ustum, aut filum ardens candelæ aut lampadis, aut etiam carbo aut pruna ardens, comprimitur per pressorium, aut pedis conculcationem, aut hujusmodi, statim cessant operationes ignis.

33. Approximatio ad corpus calidum auget calorem, pro gradu approximationis; quod etiam fit in lumine: nam quo propius collocatur objectum ad lumen, eo magis est visibile.

34. Unio calorum diversorum auget calorem, nisi facta sit commistio corporum. Nam focus magnus et focus parvus in eodem loco, nonnihil invicem augent calorem; at aqua tepida immissa in aquam ferventem refrigerat.

35. Mora corporis calidi auget calorem. Etenim calor perpetuo transiens et emanans commiscetur cum calore præinexistente, adeo ut multiplicet calorem. Nam focus non æque calefacit cubiculum per horam semi-horæ, ac si idem focus duret per horam integram. At hoc non facit lumen; etenim lampas aut candela, in aliquo loco posita, non magis illuminat per moram diuturnam, quam statim ab initio.

36. Irritatio per frigidum audiens, auget calorem; ut in focis videre est per gelu acre. Quod existimamus fieri non tantum per conclusionem et contractionem caloris, quæ est species unionis; sed per exasperationem; veluti cum aër aut baculum violenter comprimitur aut flectitur, non ad punctum loci prioris resilit, sed ulterius in contrarium. Itaque fiat diligens experimentum, per baculum vel simile aliquid immissum in flammam, utrum ad latera flammæ non uratur citius, quam in medio flammæ.

37. Gradus autem in susceptione caloris sunt complures. Atque primo omnium notandum est, quam parvus et exilis calor, etiam ea corpora, quæ caloris minime omnium sunt susceptiva, immutet tamen et nonnihil calefaciat. Nam ipse calor manus globulum plumbi aut alicujus metalli paulisper detentum nonnihil calefacit. Adeo facile, et in omnibus transmittitur et excitatur calor, corpore nullo modo ad apparentiam immutato.

38. Facillime omnium corporum apud nos et excipit et remittit calorem aër: quod optime cernitur in vitris calendaribus. Eorum confectio est talis; Accipiatur vitrum ventre concavo, collo tenui et oblongo; resupinetur et demittatur hujusmodi vitrum, ore deorsum verso, ventre sursum, in aliud vasculum vitreum ubi sit aqua, tangendo fundum vasculi illius recipientis, extremo ore vitri immissi; et incumbat paululum vitri immissi collum ad os vitri recipientis, ita ut stare possit; quod ut commodius fiat, apponatur parum ceræ ad os vitri recipientis, ita tamen ut non penitus obturetur os ejus, ne ob defectum aëris succedentis impediatur motus, de quo jam dicetur, qui est admodum facilis et delicatus.

Oportet autem ut vitrum demissum, antequam inseratur in alterum, calefiat ad ignem a parte superiori, ventre scilicet. Postquam autem fuerit vitrum illud collocatum, ut diximus, recipiet et contrahet se aër (qui dilatatus erat per calefactionem) post moram sufficientem pro extinctione illius ascititii caloris, ad talem extensionem sive dimensionem, qualis erit aëris ambientis aut communis tunc temporis, quando immittitur vitrum; atque attrahet aquam in sursum ad hujusmodi mensuram. Debet autem appendi charta angusta et oblonga, et gradibus (quot libuerit) interstincta. Videbis autem, prout tempestas diei incalescit aut frigescit, aërem se contrahere in angustius per frigidum, et extendere se in latius per calidum; id quod conspicietur per aquam ascendentem quando contrahitur aër, et descendentem sive depressam quando dilatatur aër. Sensus autem aëris, quatenus ad calidum et frigidum, tam subtilis est et exquisitus, ut facultatem tactus humani multum superet; adeo ut solis radius aliquis, aut calor anhelitus, multo magis calor manus, super vitri summitatem positus, statim deprimat aquam manifesto. Attamen existimamus, spiritum animalium magis adhuc exquisitum sensum habere calidi et frigidi, nisi quod a mole corporea impediatur et hebetetur.

39. Post aërem existimamus corpora esse maxime sensitiva caloris ea, quæ a frigore recenter immutata sint et compressa, qualia sunt nix, et glacies; ea enim leni aliquo tepore solvi incipiunt et colliquari. Post illa sequitur fortasse argentum vivum. Post illud sequuntur corpora pinguia, ut oleum, butyrum, et similia; deinde lignum; deinde aqua. Postremo lapides et metalla,

quæ nun facile calefiunt, præsertim interius. Illa tamen calorem semel susceptum diutissime retinent; it aut later, aut lapis, aut ferrum ignitum, in pelvim aquæ frigidæ immissum et demersum, per quartam partem horæ (plus minus) retineat calorem, ita ut tangi non possit.

40. Quo minor est corporis moles, eo citius per corpus calidum approximatum incalescit; id quod demonstrat omnem calorem apud nos esse corpori tangibili quodammodo adversum.

41. Calidum, quatenus ad sensum et tactum humanum, res varia est et respectiva; adeo ut aqua tepida, si manus frigore occupetur, sentiatur esse calida; sin manus incaluerit, frigida.

XIV.

Quam inopes simus historiæ, quivis facile advertet, eum in *tabulis* superioribus, præterquam quod loco historiæ probatæ et instantiarum certarum nonnunquam traditiones et relationes inseramus (semper tamen adjecta dubiæ fidei et auctoritatis nota) sæpenumero etiam hisce verbis, *Fiat experimentum*, vel *Inquiratur ulterius*, uti cogamur.

XV.

Atque opus et officium harum trium tabularum, *Comparentiam instantiarum ad intellectum* vocare consuevimus. Facta autem *comparentia*, in opere ponenda est ipsa *inductio*. Invenienda est enim, super *comparentiam* omnium et singularum instantiarum, natura talis, quæ cum natura data perpetuo adsit, absit; atque crescat, et decrescat; sitque (ut superius dictum est) limitatio naturæ magis communis. Hoc si mens jam ab initio facile tentet affirmative (quod sibi permissa semper facere solet) occurrunt phantasmata, et opinabilia, et notionalia male terminata, et axiomata quotidie emendanda; nisi libeat (scholarum more) pugnare pro falsis. Ea tamen proculdubio erunt meliora aut praviora, pro facultate et robore intellectus qui operatur. At omnino Deo (formarum inditori et opifici) aut fortasse angelis et intelligentiis competit, formas per affirmationem immediate nosse, atque ab initio contemplationis. Sed certe supra hominem est; cui tantum conceditur, procedere primo per *negativas*, et postremo loco desinere in *affirmativas*, post omnimodam exclusionem.

XVI.

Itaque naturæ facienda est prorsus solutio et separatio; non per ignem certe, sed per mentem, tanquam ignem divinum. Est itaque *inductionis* veræ opus primum (quatenus ad inveniendas formas) *rejectio* sive *exclusiva* naturarum singularum, quæ non inveniuntur in aliqua instantia, ubi natura data adest; aut inveniuntur in aliqua instantia, ubi natura data abest; aut inveniuntur in aliqua instantia crescere, cum natura data decrescat; aut decrescere, cum natura data crescat. Tum vero post *rejectionem* et *exclusivam* debitis modis factam, secundo loco (tanquam in fundo) manebit (abeuntibus in fumum opinionibus volatilibus) forma affirmativa, solida, et vera, et bene terminata. Atque hoc breve dictu est, sed per multas ambages ad hoc pervenitur. Nos autem nihil fortasse ex iis, quæ ad hoc faciunt, prætermittemus.

XVII.

Cavendum autem est, et monendum quasi perpetuo, ne eum tantæ partes formis videntur a nobis tribui, trahantur ea, quæ dicimus, ad formas eas, quibus hominum contemplationes et cogitationes hactenus assueverunt.

Primo enim, de formis copulatis, quæ sunt (ut diximus) naturarum simplicium conjugia ex cursu communi universi, ut leonis, aquilæ, rosæ, auri, et hujusmodi, impræsentiarum non loquimur. Tempus enim erit de iis tractandi, cum ventum fuerit ad *latentes processus* et *latentes schematismos*, eorumque inventionem, prout reperiuntur in substantiis (quas vocant) seu naturis concretis.

Rursus vero non intelligantur ea, quæ dicimus (etiam quatenus ad naturas simplices) de formis et ideis abstractis, aut in materia non determinatis, aut male determinatis. Nos enim cum de formis loquimur, nil aliud intelligimus, quam leges illas et determinationes actus puri, quæ naturam aliquam simplicem ordinant et constituunt; ut calorem, lumen, pondus, in omnimoda materia et subjecto susceptibili. Itaque eadem res est forma calidi aut forma luminis, et lex calidi sive lex luminis; neque vero a rebus ipsis et parte operativa unquam nos abstrahimus aut recedimus. Quare cum dicimus (exempli gratia) in inquisitione formæ caloris, "Rejice tenuitatem," aut "Tenuitas non est ex forma caloris;" idem est ac si dicamus, "Potest homo superinducere calorem in corpus densum;" aut contra, "Potest homo auferre aut arcere calorem a corpore tenui."

Quod si cuiquam videantur etiam firmæ nostræ habere nonnihil abstracti, quod misceant et conjungant heterogenia (videntur enim valde esse heterogenea calor cœlestium, et ignis; rubor fixus in rosa, aut similibus, et apparens in iride, aut radiis opalii, aut adamantis; mors ex submersione, ex crematione, ex punctura gladii, ex apoplexia, ex atrophia; et tamen conveniunt ista in natura calidi, ruboris, mortis) is se habere intellectum norit, consuetudine et integralitate rerum, et opinionibus captum et detentum. Certissimum enim est, ista, utcunque heterogenea et aliena, coire in formam, sive legem eam quæ ordinat calorem, aut ruborem, aut mortem; nec emancipari posse potentiam humanam, et liberari a naturæ cursu communi, et expandi et exaltari ad efficientia nova, et modos operandi novos, nisi per revelationem et inventionem hujusmodi formarum; et tamen post istam unionem naturæ, quæ est res maxime principalis, de naturæ divisionibus et venis, tam ordinariis, quam interioribus et verioribus, suo loco postea dicetur.

XVIII.

Jam vero proponendum est exemplum *exclusionis* sive *rejectionis* naturarum, quæ per *tabulas comparentiæ* reperiuntur non esse ex forma calidi; illud interim monendo, non solum sufficere singulas *tabulas* ad *rejectionem* alicujus naturæ, sed etiam unamquamque ex instantiis singularibus in illis contentis. Manifestum enim est ex iis quæ dicta sunt, omnem

instantiam contradictoriam destruere opinabile de forma. Sed nihilominus quandoque, perspicuitatis causa, et ut usus *tabularum* clarius demonstretur, *exclusivam* duplicamus aut repetimus.

EXEMPLUM EXCLUSIVÆ, SIVE REJECTIONIS NATURARUM A FORMA CALIDI.

1. Per radios solis, rejice naturam elementarem.
2. Per ignem communem, et maxime per ignes subterraneos (qui remotissimi sunt, et plurimum intercluduntur a radiis cœlestibus) rejice naturam cœlestem.
3. Per calefactionem omnigenum corporum (hoc est, mineralium, vegetabilium, partium exteriorum animalium, aquæ, olei, aëris, et reliquorum) ex approximatione sola ad ignem, aut aliud corpus calidum; rejice omnem varietatem, sive subtiliorem texturam corporum.
4. Per ferrum et metalla ignita, quæ calefaciunt alia corpora, nec tamen omnino pondere aut substantia minuuntur; rejice inditionem sive mixturam substantiæ alterius calidi.
5. Per aquam ferventem, atque aërem, atque etiam per metalla, et alia solida calefacta, sed non usque ad ignitionem sive ruborem; rejice lucem aut lumen.
6. Per radios lunæ et aliarum stellarum (excepto sole) rejice etiam lucem et lumen.
7. Per comparativam ferri igniti et flammæ spiritus vini (ex quibus ferrum ignitum plus habet calidi et minus lucidi, flamma autem spiritus vini plus lucidi et minus calidi) rejice etiam lucem et lumen.
8. Per aurum et alia metalla ignita, quæ densissimi sunt corporis secundum totum; rejice tenuitatem.
9. Per aërem, qui invenitur ut plurimum frigidus, et tamen manet tenuis; rejice etiam tenuitatem.
10. Per ferrum ignitum, quod non intumescit mole, sed manet intra eandem dimensionem visibilem; rejiee motum localem, aut expansivum, secundum totum.
11. Per dilatationem aëris in vitris calendariis et similibus, qui movetur localiter et expansive manifesto, neque tamen colligit manifestum augmentum caloris; rejice etiam motum localem, aut expansivum secundum totum.
12. Per facilem tepefactionem omnium corporum, absque aliqua destructione aut alteratione notabili; rejiee naturam destructivam, aut inditionem violentam alicujus naturæ novæ.
13. Per consensum et conformitatem operum similium, quæ eduntur a calore et a frigore; rejice motum tam expansivum quam contractivum, secundum totum.
14. Per accensionem caloris ex attritione corporum; rejice naturam principialem. Naturam principialem vocamus eam, quæ positiva reperitur in natura, nec causatur a natura præcedente.

Sunt et aliæ naturæ; neque enim tabulas conficimus perfectas, sed exempla tantum.

Omnes et singulæ naturæ prædictæ non sunt ex forma calidi. Atque ab omnibus naturis prædictis liberatur homo in operatione super calidum.

XIX.

Atque in *exclusiva* jacta sunt fundamenta *inductionis* veræ, quæ tamen non perficitur donec sistatur in affirmativa. Neque vero ipsa *exclusiva* ullo modo perfecta est, neque adeo esse potest sub initiis. Est enim *exclusiva* (ut plane liquet) *rejectio* naturarum simplicium. Quod si non habeamus adhuc bonas et veras notiones naturarum simplicium, quomodo rectificari potest *exclusiva*? At nonnullæ ex supradictis (veluti notio naturæ elementaris, notio naturæ cœlestis, notio tenuitatis) sunt notiones vagæ, nec bene terminatæ. Itaque nos, qui nec ignari sumus, nec obliti, quantum opus aggrediamur (viz. ut faciamus intellectum humanum rebus et naturæ parem) nullo modo acquiescimus in his, quæ adhuc præcepimus; sed et rem in ulterius provehimus, et fortiora auxilia in usum intellectus machinamur et ministramus; quæ nunc subjungemus. Et certe in *interpretatione naturæ* animus omnino taliter est præparandus et formandus, ut et sustineat se in gradibus debitis certitudinis, et tamen cogitet (præsertim sub initiis) ea, quæ adsunt, multum pendere ex iis, quæ supersunt.

XX.

Attamen quia citius emergit veritas ex errore, quam ex confusione, utile putamus, ut fiat permissio intellectui, post tres tabulas *comparentiæ primæ* (quales posuimus) factas et pensitatas, accingendi se et tentandi opus *interpretationis naturæ* in affirmativa; tam ex instantiis tabularum, quam ex iis, quæ alias occurrent. Quod genus tentamenti, *permissionem intellectus*, sive *interpretationem inchoatam*, sive *vindemiationem primam* appellare consuevimus.

VINDEMIATIO PRIMA DE FORMA CALIDI.

Animadvertendum autem est, formam rei inesse (ut ex iis, quæ dicta sunt, plane liquet) instantiis universis et singulis, in quibus res ipsa incst; aliter enim forma non esset: itaque nulla plane dari potest *instantia* contradictoria. Attamen longe magis conspicua invenitur forma et evidens in aliquibus *instantiis*, quam in aliis; in iis videlicet, ubi minus cohibita est natura formæ, et impedita, et redacta in ordinem, per naturas alias. Hujusmodi autem instantias, *elucescentias*, vel *instantias ostensivas* appellare consuevimus. Pergendum itaque est ad *vindemiationem* ipsam *primam* de forma calidi.

Per universas et singulas *instantias*, natura, cujus limitatio est calor, videtur esse motus. Hoc autem maxime ostenditur in flamma, quæ perpetuo movetur; et in liquoribus ferventibus aut bullientibus, qui etiam perpetuo moventur. Atque ostenditur etiam in incitatione sive incremento caloris facto per motum; ut in follibus et ventis: de quo vide *Instant.* 29. *Tab.* 3. Atque similiter in aliis modis motus: de quibus vide *Instant.* 28. et 31. *Tab.* 3. Rursus ostenditur in extinctione ignis et caloris per omnem fortem compressionem, quæ frænat et cessare facit

motum: de qua vide *Instant.* 30. et 32. *Tab.* 3. Ostenditur etiam in hoc, quod omne corpus destruitur, aut saltem insigniter alteratur, ab omni igne et calore forti ac vehementi. Unde liquido constat, fieri a calore tumultum, et perturbationem, et motum acrem, in partibus internis corporis; qui sensim vergit ad dissolutionem.

Intelligatur hoc, quod diximus de motu (nempe, ut sit instar generis ad calorem) non quod calor generet motum, aut quod motus generet calorem (licet et hæc in aliquibus vera sint) sed quod ipsissimus calor, sive *quid ipsum* caloris sit motus, et nihil aliud: limitatus tamen per *differentias*, quas mox subjungemus, postquam nonnullas cautiones adjecerimus ad evitandum æquivocum.

Calidum ad sensum, res respectiva est, et in ordine ad hominem, non ad universum; et ponitur recte ut effectus caloris tantum in spiritum animalem: quinetiam in seipso res varia est, cum idem corpus (prout sensus prædisponitur) inducat perceptionem tam calidi quam frigidi: ut patet per *Instant.* 41. *Tab.* 3.

Neque vero communicatio caloris, sive natura ejus transitiva, per quam corpus admotum corpori calido incalescit, confundi debet cum forma calidi. Aliud enim est calidum; aliud calefactivum. Nam per motum attritionis inducitur calor absque aliquo calido præcedente, unde excluditur calefactivum a forma calidi. Atque etiam ubi calidum efficitur per approximationem calidi, hoc ipsum non fit ex forma calidi; sed omnino pendet a natura altiore et magis communi; viz. ex natura assimilationis sive multiplicationis sui: de qua facienda est separatim inquisitio.

At notio ignis plebcia est, et nihil valet: composita enim est ex concursu, qui fit calidi et lucidi in aliquo corpore; ut in flamma communi, ex corporibus accensis usque ad ruborem.

Remoto itaque omni æquivoco, veniendum jam tandem est ad *differentias* veras, quæ limitant motum, et constituunt eum in formam calidi.

Prima igitur *differentia* ea est, quod calor sit motus expansivus, per quem corpus nititur ad dilatationem sui, et recipiendi se in majorem sphæram sive dimensionem, quam prius occupaverat. Hæc autem differentia maxime ostenditur in flamma; ubi fumus sive halitus pinguis manifesto dilatatur et aperit se in flammam.

Ostenditur etiam in omni liquore fervente, qui manifesto intumescit, insurgit, et emittit bullas; atque urget processum expandendi se, donec vertatur in corpus longe magis extensum et dilatatum, quam sit ipse liquor; viz. in vaporem, aut fumum, aut aërem.

Ostenditur etiam in omni ligno et combustibili; ubi fit aliquando exudatio, at semper evaporatio.

Ostenditur etiam in colliquatione metallorum; quæ (cum sint corporis compactissimi) non facile intumescunt et se dilatant: sed tamen spiritus eorum, postquam fuerit in se dilatatus, et majorem adeo dilatationem concupierit, trudit plane et agit partes crassiores in liquidum. Quod si etiam calor fortius intendatur, solvit et vertit multum ex iis in volatile.

Ostenditur etiam in ferro aut lapidibus; quæ licet non liquefiant aut fundantur, tamen emolliuntur: quod etiam fit in baculis ligni, quæ calefacta paululum in cineribus calidis fiunt flexibilia.

Optime autem cernitur iste motus in aëre, qui per exiguum calorem se dilatat continuo et manifesto: ut per *Instant.* 38. *Tab.* 3.

Ostenditur etiam in natura contraria frigidi. Frigus enim omne corpus contrahit et cogit in angustius; adeo ut per intensa frigora clavi excidant ex parietibus, æra dissiliant, vitrum etiam calefactum et subito positum in frigido dissiliat et frangatur. Similiter aër per levem infrigidationem recipit se in angustius: ut per *Instant.* 38. *Tab.* 3. Verum de his fusius dicetur in inquisitione de frigido.

Neque mirum est, si calidum et frigidum edant complures actiones communes (de quo vide *Instant.* 32. *Tab.* 2.) cum inveniantur duæ ex sequentibus *differentiis* (de quibus mox dicemus) quæ competunt utrique naturæ; licet in hac *differentia* (de qua nunc loquimur) actiones sint ex diametro oppositæ: calidum enim dat motum expansivum et dilatantem, frigidum autem dat motum contractivum et coëuntem.

Secunda *differentia* est modificatio prioris; hæc videlicet, quod calor sit motus expansivus sive versus circumferentiam: hac lege tamen, ut una feratur corpus sursum. Dubium enim non est, quin sint motus complures mixti. Exempli gratia: sagitta aut spiculum simul et progrediendo rotat, et rotando progreditur. Similiter et motus caloris simul est et expansivus, et latio in sursum.

Hæc vero *differentia* ostenditur in forcipe, aut bacillo ferreo immisso in ignem: quia si immittatur perpendiculariter, tenendo manum superius, cito manum adurit; sin ex latere aut inferius, omnino tardius.

Conspicua etiam est in *distillationibus* per descensorium; quibus utuntur homines ad flores delicatiores, quorum odores facile evanescunt. Nam hoc reperit industria, ut collocent ignem non subter sed supra, ut adurat minus. Neque enim flamma tantum vergit sursum, sed etiam omne calidum.

Fiat autem experimentum hujus rei in contraria natura frigidi; viz. utrum frigus non contrahat corpus descendendo deorsum; quemadmodum calidum dilatat corpus ascendendo sursum. Itaque adhibeantur duo bacilla ferrea, vel duo tubi vitrei, quoad cætera pares; et calefiant nonnihil; et ponatur spongia cum aqua frigida, vel nix, subter unam, et similiter super alteram. Existimamus enim celeriorem fore refrigerationem ad extremitates in eo bacillo, ubi nix ponitur supra, quam in eo, ubi nix ponitur subter: contra ac fit in calido.

Tertia *differentia* ea est; ut calor sit motus, non expansivus uniformiter secundum totum, sed expansivus per particulas minores corporis; et simul cohibitus, et repulsus, et reverberatus; adeo ut

induat motum alternativum, et perpetuo trepidantem, et tentantem, et nitentem, et ex repercussione irritatum; unde furor ille ignis et caloris ortum habet.

Ista vero *differentia* ostenditur maxime in flamma et liquoribus bullientibus; quæ perpetuo trepidant, et in parvis portionibus tument, et rursus subsidunt.

Ostenditur etiam in iis corporibus, quæ sunt tam dnræ compagis, ut calefacta aut ignita non intumescant, aut dilatentur mole; ut ferrum ignitum, in quo calor est acerrimus.

Ostenditur etiam in hoc, quod per frigidissimas tempestates focus ardeat acerrime.

Ostenditur etiam in hoc, quod cum extenditur aër in vitro calendari absque impedimento aut repulsione, uniformiter scilicet et æqualiter; non percipiatur calor. Etiam in ventis conclusis, licet erumpant vi maxima, tamen non percipitur calor insignis; quia scilicet motus fit secundum totum, absque motu alternante in partienlis. Atque ad hoc fiat experimentum, utrum flamma non urat aerius versus latera, quam in medio flammæ.

Ostenditur etiam in hoc, quod omnis ustio transigatur per minutos poros corporis, quod nritur; adeo ut ustio subruat, et penetret, et focidet, et stimulet: perinde ac si essent infinitæ cuspides acus. Itaque ex hoc illud etiam fit, quod omnes aquæ fortes (si proportionatæ sint ad corpus, in quod agunt) edant opera ignis, ex natura sua corrodente et pungente.

Atque ista differentia (de qua nunc dicimus) communis est cum natura frigidi; in quo cohibetur motus contractivus, per renitentiam expandendi: quemadmodum in calido cohibetur motus expansivus, per renitentiam contrahendi.

Itaque sive partes corporis penetrent versus interius, sive penetrent versus exterius, similis est ratio; licet impar admodum sit fortitudo: quia non habemus hic apud nos in superficie terræ aliquid, quod sit impense frigidum: Vide *Instant.* 27. *Tab.* 9.

Quarta *differentia* est modificatio prioris: hæc scilicet, quod modus ille stimulationis aut penetrationis debeat esse nonnihil rapidus et minime lentus; atque fiat etiam per partienlas, licet minutas; tamen non ad extremam subtilitatem, sed quasi majusculas.

Ostenditur hæc *differentia* in comparatione operum quæ edit ignis, cum iis quæ edit tempus sive ætas. Ætas enim sive tempus arefacit, consumit, subruit, et ineinerat, non minus quam ignis; vel potius longe subtilius: sed quia motus ejusmodi est lentus admodum, et per partienlas valde exiles, non percipitur calor.

Ostenditur etiam in comparatione dissolutionum ferri et auri. Aurum enim dissolvitur absque calore excitato; ferrum autem cum vehementi excitatione caloris, licet simili fere intervallo quoad tempus. Quia scilicet in auro, ingressus aquæ separationis est clemens, et subtiliter insinuans, et cessio partium auri facilis: ut in ferro, ingressus est asper, et cum conflictu, et partes ferri habent obstinationem majorem.

Ostenditur etiam aliquatenus in gangrænis nonnullis et mortificationibus carnium; quæ non excitant magnum calorem aut dolorem, ob subtilitatem putrefactionis.

Atque hæc sit *prima vindemiatio* sive *interpretatio inchoata* de forma calidi, facta per *permissionem intellectus.*

Ex *vindemiatione* autem istn *prima*, forma sive definitio vera caloris (ejus, qui est in ordine ad universum, non relativus tantummodo ad sensum) talis est, brevi verborum complexu. *Calor est motus expansivus, cohibitus, et nitens per partes minores.* Modificatur autem expansio; *ut expandenda in ambitum, nonnihil tamen inclinet versus superiora.* Modificatur autem et nixus ille per partes: *ut non sit omnino segnis, sed incitatus, et cum impetu nonnullo.*

Quod vero ad operativam attinet, eadem res est. Nam designatio est talis. *Si in aliquo corpore naturali poteris excitare motum ad se dilatandum aut expandendum; eumque motum ita reprimere et in se vertere, ut dilatatio illa non procedat æqualiter, sed partim obtineat, partim retrudatur; proculdubia generabis calidum:* non habita ratione, sive corpus illud sit elementare (ut loquuntur) sive imbutum a cœlestibus; sive luminosum, sive opacum; sive tenue, sive densum; sive localiter expansum, sive intra claustra dimensionis primæ contentum; sive vergens ad dissolutionem, sive manens in statu; sive animal, sive vegetabile, sive minerale; sive aqua, sive oleum, sive aër, aut aliqua alia substantia quæcunque susceptiva motus prædicti. Calidum autem ad sensum res eadem est: sed cum analogia, qualis competit sensui. Nunc vero ad ulteriora auxilia procedendum est.

XXI.

Post *tabulas comparentiæ primæ*, et *rejectionem* sive *exclusivam*, necnon *vindemiationem primam* factam secundum eas; pergendum est ad reliqua auxilia Intellectus, circa *interpretationem naturæ*, et *inductionem* veram ac perfectam. In quibus proponendis, ubi opus erit tabulis, procedemus super calidum et frigidum; ubi autem opus erit tantum exemplis paucioribus, procedemus per alia omnia: ut nec confundatur inquisitio, et tamen doctrina versetur minus in angusto.

Dicemus itaque primo loco, de *prærogativis instantiarum:* secundo, de *adminiculis inductionis:* tertio, de *rectificatione inductionis:* quarto, de *variatione inquisitionis pro natura subjecti:* quinto, de *prærogativis naturarum* quatenus ad inquisitionem; sive de eo quod inquirendum est prius et posterius: sexto, de *termiais inquisitionis*, sive de *synapsi* omnium *naturarum* in universo: septimo, de *deductione ad praxin*, sive de eo quod est in ordine ad hominem: octavo, de *parasceve ad inquisitionem:* postremo autem, de *scala ascensoria et descensoria axiomatum.*

XXII.

Inter *prærogativas instantiarum*, primo proponemus *instantias solitarias*. Eæ autem sunt solitariæ, quæ exhibent naturam, de qua fit inquisitio, in talibus subjectis, quæ nil habent eammune eum aliis subjectis, præter illam ipsam naturam; ant rursus quæ non exhibent naturam, de qua fit inquisitio, in talibus subjectis, quæ sunt similia per omnia cum aliis subjectis, præterquam in illa ipsa natura. Manifestum enim est, quod hujusmodi instantiæ tollant ambages, atque aeeelerent et roborent *exclusivam*; adeo ut paucæ ex illis sint instar multarum.

Exempli gratia: si fiat inquisitio de natura *coloris*, *instantiæ solitariæ* sunt prismata, gemmæ erystallinæ, quæ reddunt eolores, non solum in se, sed exterius supra parietem; item rores, ete. Istæ enim nil habent eommune eum eoloribus fixis in floribus, gemmis eoloratis, metallis, lignis, etc. præter ipsum eolorem. Unde faeile eolligitur, quod eolor nil aliud sit, quam modifieatio imaginis lueis immissæ et reeeptæ: in priore genere, per grsdus diversos ineidentiæ; in posteriore, per texturas et sehematismos varios eorporis. Istæ autem *instantiæ sunt solitariæ* quatenus ad similitudinem.

Rursus in eadem inquisitione, venæ distinctæ albi et nigri in marmoribus, et variegationes eolorum in floribus ejusdem speciei, sunt *instantiæ solitariæ*. Album enim et nigrum marmoris, et maeulæ albi et purpurei in floribus earyophylli, eonveniunt fere in omnibus præter ipsum eolorem. Unde faeile eolligitur eolorem non multum rei habere eum naturis alieujus corporis intrinsecis, sed tantum situm esse in positura partium erassiori et quasi mechaniea. Istæ autem *instantiæ* sunt *solitariæ*, quatenus ad discrepantiam. Utrumque autem genus, *instantias solitarias* appellare eonsuevimus; aut *ferinas*, sumpto vocabulo ab astronomis.

XXIII.

Inter prærogativas instantiarum, ponemus secundo loco *instantias migrantes*. Eæ sunt, in quibus natura inquisita migrat ad generationem, eum prius non existeret; aut eontra migrat ad eorruptionem, eum prius existeret. Itaque in utraque antistrophe, instantiæ tales sunt semper geminæ; vel potius una instantia in motu, sive transitu, productu ad periodum adversam. At hujusmodi instantiæ non solum aeeelerant et roborant *exclusivam*, sed etiam eampellunt *affirmativam*, sive formam ipsam in angustum. Neeesse est enim ut formæ rei sit quippiam, quod per hujusmodi *migrationem* indatur; aut eontra per hujusmodi migrationem tollatur et destruatur. Atque lieet omnis exelusio promoveat *affirmativam*, tamen hoc magis direete fit in subjeeto eodem, quam in diversis. Forma autem (ut ex omnibus, quæ dieta sunt, manifesto liquet) prodens se in uno, ducit ad omnia: quo autem simplieior fuerit *migratio*, eo magis habenda est instantia in pretio. Præterea *instantiæ migrantes* magni sunt usus ad partem operativam; qnia cum proponant formam copulatam eum effieiente aut privante, perspiene designant praxin in aliquibus; unde faeilis etiam est transitus ad proxima. Subest tamen in illis nonnihil periculi, quod indiget cautione; hoc videlicet, ne formam nimis retrahant ad effieientem, et intelleetum perfundant, vel saltem perstringant falsa opinione de forma, ex intuitu efficientis. Effieiens vero semper ponitur nil aliud esse, qnam vehieulum, sive deferens formæ. Verum huie rei, per *exclusivam* legitime faetam, faeile adhibetur remedium.

Proponendum itaque est jam exemplum *instantiæ migrantis*. Sit natura inquisita, eandor sive albedo: *instantia migrans* ad generationem est vitrum integrum, et vitrum pulverisatum. Similiter, aqua simplex, et aqua agitata in spumam. Vitrum enim integrum, et aqua simplex, diaphana sunt, non alba: at vitrum pulverisatum, et aqua in spuma, alba, non diaphana. Itaque quærendum, quid aeideret ex ista *migratione* vitro aut aquæ. Manifestum enim est, formam albedinis deferri et invehi per istam eontusionem vitri, et agitationem aquæ. Nihil autem reperitur aeeessisse, præter eamminutionem partium vitri et aquæ, et aëris insertionem. Neque vero parum profeetum est ad inveniendam formam albedinis, quod eorpora duo per se diaphana, sed seeundum magis et minus (aër scilieet et aqua, aut aër et vitrum) simul posita per minutas portiones, exhibeant albedinem, per refraetionem inæqualem radiorum lueis.

Verum hae in re proponendum est etiam exemplum perieuli et eautionis, de quibus diximus. Nimirum faeile hie oeeurret intellectui ab hujusmodi efficientibus depravato, qnod ad formam albedinis aër semper requiratur: aut qnod albedo generatur tantum per eorpora diaphana; qnæ omnino falsa sunt, et per multas exelusiones eonvieta. Quin potius apparebit (missa nëre et hujusmodi) eorpora omnino æqualia (secundum portiones optieas) dare diaphanum; corpora vero inæqualia, per texturam simplicem, dare album; corpora inæqualia secundum texturam eompositam, sed ordinatam, dare reliquas eolores, præter nigrum; eorpora vero inæqualia per texturam eompositam, sed amnino inordinatam et eonfusam, dare nigrum. Itaque de *instantia migrante* ad generationem in natura inquisita albedinis, popositum est jam exemplum. *Instantia* autem *migrans* ad corruptionem in eadem natura albedinis, est spuma dissoluta, aut nix dissoluta: exuit enim albedinem, et induit diaphanum aqna, postquam fit integrale sine aëre.

Neque vero illud ullo modo prætermittendum est, quod sub *instantiis migrantibus* eomprehendi debeant non tantum illæ quæ migrant ad generationem et privationem; sed etiam illæ quæ *migrant* ad majorationem et minorationem; eum illæ etiam tendant ad inveniendam formam, ut per definitionem formæ superius faetam, et *tabulam graduum* manifesto liquet. Itaque papyrus, quæ sieca eum fuerit, alba est; at madefaeta (exeluso aëre, et reeepta aqua) minus alba est, et magis vergit ad diaphanum; similem habet rationem cum instantiis supradictis.

XXIV.

Inter prærogativas instantiarum, tertio loeo ponemus *instantias ostensivas*, de quibus in *vindemiatione prima de calida* mentionem fecimus; quas etiam *elucescentias* sive *instantias liberatas* et *prædomi-*

nantes, appellare consuevimus. Eæ sunt, quæ ostendunt naturam inquisitam nudam et substantivam, atque etiam in exaltatione sua, aut summo gradu potentiæ suæ; emancipatam scilicet, et liberatam ab impedimentis, vel saltem per fortitudinem suæ virtutis dominantem super ipsa, eaque supprimentem et coërcentem. Cum enim omne corpus suscipiat multas naturarum formas copulatas et in concreto, fit ut alia aliam retundat, deprimat, frangat, et liget; unde obscurantur formæ singulæ. Inveniuntur autem subjecta nonnulla, in quibus natura inquisita præ aliis est in suo vigore; vel per absentiam impedimenti, vel per prædominantiam virtutis. Hujusmodi autem *instantiæ* sunt maxime *ostensivæ* formæ. Verum et in his ipsis instantiis adhibenda est cautio, et cohibendus impetus intellectus. Quicquid enim ostentat formam, eamque trudit, ut videatur occurrere intellectui, pro suspecto habendum est, et recurrendum ad *exclusivam* severam et diligentem.

Exempli gratia; sit natura inquisita, calidum. *Instantia ostensiva* motus expansionis, (quæ, ut superius dictum est, portio est præcipua formæ calidi,) est vitrum calendare aëris. Etenim flamma, licet manifesto exhibeat expansionem; tamen propter momentaneam extinctionem non ostendit progressum expansionis. Aqua autem fervens, propter facilem transitionem aquæ in vaporem et aërem, non tam bene ostendit expansionem aquæ in corpore suo. Rursus ferrum ignitum, et similia, tantum abest ut progressum ostendant, ut contra per retusionem et fractionem spiritus, per partes compactas et crassas (quæ domant et frænant expansionem) ipsa expansio non sit omnino conspicua ad sensum. At vitrum calendare clare ostendit expansionem in aëre, et conspicuam, et progredientem, et durantem, neque transeuntem.

Rursus, exempli gratia; sit natura inquisita, pondus. *Instantia ostensiva* ponderis est argentum vivum. Omnia enim superat pondere magno intervallo, præter aurum; quod non multo gravius est. At præstantior instantia est ad indicandam formam ponderis argentum vivum, quam aurum; quia aurum solidum est et consistens, quod genus referri videtur ad densum; at argentum vivum liquidum est, et turgens spiritu, et tamen multis partibus exuperat gravitate diamantem, et ea quæ putantur solidissima. Ex quo ostenditur, formam gravis, sive ponderosi, dominari simpliciter in copia materiæ, et non in arcta compage.

XXV.

Inter prærogativas instantiarum ponemus quarto loco *instantias clandestinas*, quas etiam *instantias crepusculi* appellare consuevimus. Eæ sunt veluti oppositæ *instantiis ostensivis*. Exhibent enim naturam inquisitam in infima virtute, et tanquam in incunabulis et rudimentis suis; tentantem, et tanquam primo experientem, sed sub contraria natura latentem, et subactam. Sunt autem hujusmodi *instantiæ* magni omnino momenti ad invenicndas formas; quia sicut *ostensivæ* ducunt facile ad differentias, ita *clandestinæ* ducunt optime ad genera: id est, ad naturas illas communes, quarum naturæ inquisitæ nihil aliud sunt quam limitationes.

Exempli gratia; sit natura inquisita, consistens, sive se determinans; cujus contrarium est liquidum, sive fluens. *Instantiæ clandestinæ* sunt illæ, quæ exhibent gradum nonnullum debilem et infimum consistentis in fluido; veluti bulla aquæ, quæ est tanquam pellicula quædam consistens et determinata, facta ex corpore aquæ. Similiter stillicidia, quæ, si adfuerit aqua quæ succedat, producunt se in filum admodum tenue, ne discontinuetur aqua; at si non detur talis copia aquæ, quæ succedere possit, cadit aqua in guttis rotundis, quæ est figura, quæ optime aquam sustinet contra discontinuationem. At in ipso temporis articulo, cum desinit filum aquæ, et incipit descensus in guttis, resilit ipsa aqua sursum ad evitandam discontinuationem. Quin in metallis, quæ cum funduntur sunt liquida, sed magis tenacia, recipiunt se sæpe guttæ liquefactæ sursum, atque ita hærent. Simile quoddam est in instantia speculorum puerilium, quæ solent facere pueruli in scirpis ex saliva, ubi cernitur etiam pellicula consistens aquæ. At multo melius se ostendit hoc ipsum in altero illo ludicro pucrili; quando capiunt aquam, per saponem factam paulo tenaciorem, atque inflant eam per calamum cavum, atque inde formant aquam, tanquam in castellum bullarum; quæ per interpositionem aëris inducit consistentiam, eo usque ut se projici nonnihil patiatur absque discontinuatione. Optime autem cernitur hoc in spuma et nive, quæ talem induunt consistentiam, ut fere secari possint; cum tamen sint corpora formata ex aëre et aqua, quæ utraque sunt liquida. Quæ omnia non obscure innuunt, liquidum et consistens esse notiones tantum plebcias, et ad sensum; inesse autem revera omnibus corporibus fugam et evitationem se discontinuandi; eam vero in corporibus homogeneis (qualia sunt liquida) esse debilem et infirmam; in corporibus vero, quæ sunt composita ex heterogeneis, magis esse vividum et fortem; propterea quod admotio heterogenei constringit corpora; at subintratio homogenei solvit et rclaxat.

Similiter, exempli gratia; sit natura inquisita, attractio sive coitio corporum. **Instantia* circa formam ejus *ostensiva* maxime insignis est, magnes. Contraria autem natura attrahenti est, non attrahens; licet in substantia simili. Veluti ferrum, quod non attrahit ferrum, quemadmodum nec plumbum plumbum, nec lignum lignum, nec aquam aqua. *Instantia* autem *clandestina* est magnes ferro armatus, vel potius ferrum in magnete armato. Nam ita fert natura, ut magnes armatus in distantia aliqua non trahat ferrum fortius, quam magnes non armatus. Verum si admoveatur ferrum, ita ut tangat ferrum in magnete armato, tunc magnes armatus longe majus pondus ferri sustinet, quam magnes simplex et inermis; propter similitudinem substantiæ ferri versus ferrum; quæ operatio erat omnino *clandestina*, et latens in ferro, antequam magnes accessisset. Itaque manifestum est formam coitionis esse quippiam, quod in magnete sit vividum et robustum, in ferro debile et latens. Itidem, notatum est sagittas parvas ligneas absque cuspide ferrea, emissas ex sclopetis grandibus, altius penetrare in materiam ligneam (puta latera navium, aut similia) quam easdem sagittas ferro acuminatas, propter similitu-

dinem substantiæ ligni ad lignum, licet hoc ante in ligno latuerit. Itidem, licet aër aërem, aut aqua aquam, manifesto non trahat in corporibus integris; tamen bulla approximata bullæ, facilius dissolvit bullam, quam si bulla illa altera abesset, ob appetitum coitionis aquæ cum aqua, et aëris cum aëre. Atque hujusmodi *instantiæ clandestinæ* (quæ sunt usus nobilissimi, ut dictum est) in portionibus corporum parvis et subtilibus maxime se dant conspiciendas: quia massæ rerum majores sequuntur formas magis catholicas, et generales; ut suo loco dicetur.

XXVI.

Inter prærogativas instantiarum ponemus quinto loco *instantias constitutivas*, quas etiam *manipulares* appellare consuevimus. Eæ sunt, quæ constituunt unam speciem naturæ inquisitæ tanquam formam minorem. Cum enim formæ legitimæ (quæ sunt semper convertibiles cum naturis inquisitis) lateant in profundo, nec facile inveniantur; postulat res et infirmitas humani intellectus, ut formæ particulares, quæ sunt congregativæ *manipulorum* quorundam instantiarum (neutiquam vero omnium) in notionem aliquam communem, non negligantur, verum diligentius notentur. Quicquid enim unit naturam, licet modis imperfectis, ad inventionem formarum viam sternit. Itaque instantiæ, quæ ad hoc utiles sunt, non sunt contemnendæ potestatis, sed habent nonnullam prærogativam.

Verum in his diligens est adhibenda cautio, ne intellectus humanus, postquam complures ex istis formis particularibus adinvenerit, atque inde partitiones sive divisiones naturæ inquisitæ confecerit; in illis omnino acquiescat, atque ad inventionem legitimam formæ magnæ se non accingat; sed præsupponat, naturam velut a radicibus esse multiplicem et divisam, atque ulteriorem naturæ unionem, tanquam rem supervacuæ subtilitatis, et vergentem ad merum abstractum, fastidiat et rejiciat.

Exempli gratia; sit natura inquisita, memoria, sive excitans et adjuvans memoriam. *Instantiæ constitutivæ* sunt; ordo, sive distributio, quæ manifesto juvat memoriam. Item loci in memoria artificiali; qui aut possunt esse loci secundum proprium sensum, veluti janua, angulus, fenestra, et similia; aut possunt esse personæ familiares et notæ; aut possunt esse quidvis ad placitum (modo in ordine certo ponantur) veluti animalia, herbæ; etiam verba, literæ, characteres, personæ historicæ, et cætera; licet nonnulla ex his magis apta sint et commoda, alia minus. Hujusmodi autem loci memoriam insigniter juvant, eamque longe supra vires naturales exaltant. Item carmina facilius hærent, et discuntur memoriter, quam prosa. Atque ex isto *manipulatrium* instantiarum, videlicet ordinis, locorum artificialis memoriæ, et versuum, constituitur species una auxilii ad memoriam. Species autem illa, *abscissio infiniti* recte vocari possit. Cum enim quis aliquid reminisci aut revocare in memoriam nititur; si nullam prænotionem habeat aut perceptionem ejus quod quærit; quærit certe et molitur, et hac illac discurrit, tanquam in infinito. Quod si certam aliquam prænotionem habeat; statim abscinditur infinitum; et fit discursus memoriæ magis in vicino. In tribus autem illis instantiis, quæ superius dictæ sunt, prænotio perspicua est et certa. In prima videlicet debet esse aliquid, quod congruat cum ordine: In secunda debet esse imago, quæ relationem aliquam habeat, sive convenientiam ad illa loca certa: In tertia debent esse verba, quæ cadant in versum. Atque ita abscinditur infinitum. Aliæ autem instantiæ dabunt hanc alteram speciem, ut quicquid deducat intellectuale ad feriendum sensum (quæ ratio etiam præcipue viget in artificiali memoria) juvet memoriam. Aliæ instantiæ dabunt hanc alteram speciem; ut quæ faciunt impressionem in affectu forti, incutientes scilicet metum, admirationem, pudorem, delectationem, juvent memoriam. Aliæ instantiæ dabunt hanc alteram speciem, ut quæ maxime imprimuntur a mente pura, et minus præoccupata ante vel post; veluti quæ discuntur in pueritia, aut quæ commentamur ante somnum, etiam primæ quæque rerum vices; magis hæreant in memoria. Aliæ instantiæ dabunt hanc alteram speciem, ut multitudo circumstantiarum, sive ansarum, juvet memoriam; veluti scriptio per partes non continuatas, lectio, sive recitatio voce alta. Aliæ denique instantiæ dabunt hanc alteram speciem; ut quæ expectantur, et attentionem excitant, melius hæreant, quam quæ prætervolant. Itaque si scriptum aliquod vicies perlegeris, non tam facile illud memoriter disces, quam si illud legas decies, tentando interim illud recitare, et ubi deficit memoria, inspiciendo librum. Ita ut sint veluti sex formæ minores eorum, quæ juvant memoriam; videlicet abscissio infiniti; deductio intellectualis ad sensibile; impressio in affectu forti; impressio in mente pura; multitudo ansarum; præ-expectatio.

Similiter, exempli gratia; sit natura inquisita, gustus, sive gustatio. *Instantiæ*, quæ sequuntur, sunt *constitutivæ*: videlicet, quod qui non olfaciunt, sed sensu eo a natura destituti sunt, non percipiant, aut gustu distinguant cibum rancidum aut putridum; neque similiter allium, aut rosatum, aut hujusmodi. Rursus, illi, qui per accidens nares habent per descensum rheumatis obstructas, non discernunt aut percipiunt aliquid putridum aut rancidum, aut aqua rosacea inspersum. Rursus, qui afficiuntur hujusmodi rheumate, si in ipso momento, cum aliquid fœtidum aut odoratum habent in ore, sive palato, emungant fortiter; in ipso instanti manifestam perceptionem habent rancidi vel odorati. Quæ instantiæ dabunt et constituent hanc speciem, vel partem potius gustus; ut sensus gustationis ex parte nihil aliud sit, quam olfactus interior, transiens et descendens a narium meatibus superioribus in os et palatum. At contra, salsum, et dulce, et acre, et acidum, et austerum, et amarum, et similia; hæc (inquam) omnia æque sentiunt illi, in quibus olfactus deest, aut obturatur, ac quisquam alius: ut manifestum sit, sensum gustus esse compositum quiddam ex olfactu interiori, et tactu quodam exquisito; de quo nunc non est dicendi locus.

Similiter, exempli gratia; sit natura inquisita, communicatio qualitatis, absque commistione substantiæ. Instantia lucis dabet vel constituet unam speciem communicationis; calor vero et magnes, alteram. Communicatio enim lucis est tanquam

momentanea, et statim perit, amota luce originali. At calidum et virtus magnetica, postquam transmissa fuerint, vel potius excitata in alio corpore, hærent et manent ad tempus non parvum, amoto primo movente.

Denique magna est omnino prærogativa *instantiarium constitutivarum;* ut quæ plurimum faciant et ad definitiones (præsertim particulares) et ad divisiones, sive partitiones naturarum; de quo non male dixit Plato, "Quod habendus sit tanquam pro Deo, qui definire et dividere bene sciat."

XXVII.

Inter prærogativas instantiarum ponemus sexto loco *instantias conformes* sive *proportionatas;* quas etiam *parallelas*, sive *similitudines physicas*, appellare consuevimus. Eæ vero sunt, quæ ostendunt similitudines et conjugationes rerum, non in formis minoribus (quod faciunt *instantiæ constitutivæ*) sed plane in concreto. Itaque sunt tanquam primi et infimi gradus ad unionem naturæ. Neque constituunt aliquod axioma statim ab initio; sed indicant et observant tantum quendam consensum corporum. Attamen licet non multum promoveant ad inveniendas formas; nihilominus magna eum utilitate revelant partium universi fabricam, et in membris ejus exercent veluti anatomiam quandam; atque proinde veluti manu-ducunt interdum ad axiomata sublimia et nobilia; præsertim illa, quæ ad mundi configurationem pertinent, potius quam ad naturas et formas simplices.

Exempli gratia; instantiæ conformes sunt, quæ sequuntur: speculum, et oculus; et similiter fabrica auris, et loca reddentia echo. Ex qua conformitate, præter ipsam observationem similitudinis, quæ ad multa utilis est, proclive est insuper colligere et formare illud axioma, videlicet, organa sensuum et corpora, quæ pariunt reflexiones ad sensus, esse similia naturæ. Rursus ex hoc ipso admonitus intellectus, non ægre insurgit ad axioma quoddam altius et nobilius. Hoc nimirum; nihil interesse inter consensus sive sympathias corporum sensu præditorum, et inanimatorum sine sensu, nisi quod in illis accedat spiritus animalis ad corpus ita dispositum; in his autem absit. Adeo ut quot sint consensus in corporibus inanimatis, tot possint esse sensus in animalibus, si essent perforationes in corpore animato, ad discursum spiritus animalis in membrum rite dispositum, tanquam in organum idoneum. Et rursus, quot sint sensus in animalibus, tot sint proculdubio motus in corpore inanimato, ubi spiritus animalis abfuerit; licet necesse sit multo plures esse motus in corporibus inanimatis, quam sensus in animatis, propter paucitatem organorum sensus. Atque hujus rei ostendit se exemplum valde manifestum in doloribus. Etenim cum sint plura genera doloris in animalibus, et tanquam varii illius characteres (veluti alius est dolor ustionis, alius frigoris intensi, alius puncturæ, alius compressionis, alius extensionis, et similium) certissimum est, omnia illa, quoad motum, inesse corporibus inanimatis; veluti ligno, aut lapidi, cum uritur, aut per gelu constringitur, aut pungitur, aut scinditur, aut flectitur, aut tunditur; et sic de aliis: licet non subintrent sensus, propter absentiam spiritus animalis.

Item *instantiæ conformes* (quod mirum fortasse dictu) sunt radices et rami plantarum. Omne enim vegetabile intumescit, et extendit partes in circumferentiam, tam sursum quam deorsum. Neque alia est differentia radicum et ramorum, quam quod radix includatur in terra, et rami exponantur aëri et soli. Si quis enim accipiat ramum tenerum et vegetem arboris, atque illum reflectat in aliquam terræ particulam, licet non cohæreat ipsi solo, gignit statim non ramum, sed radicem. Atque vice versa, si terra ponatur superius, atque ita obstruatur lapide, aut aliqua dura substantia, ut planta cohibeatur, nec possit frondescere sursum, edet ramos in aërem deorsum.

Item *instantiæ conformes* sunt gummi arborum, et pleræque gemmæ rupium. Utraque enim nil aliud sunt, quam exudationes et percolationes succorum: in primo genere scilicet, succorum ex arboribus; in secundo, ex saxis; unde gignitur claritudo et splendor in utrisque, per percolationem nimirum tennem et accuratam. Nam inde fit etiam, quod pili animalium non sint tam pulchri, et tam vividi coloris, quam avium plumæ complures; quia succi non tam delicate percolantur per cutem, quam per calamum.

Item *instantiæ conformes* sunt, scrotum in animalibus masculis; et matrix in fœmellis. Adeo ut nobilis illa fabrica, per quam sexus differunt (quatenus ad animalia terrestria) nil aliud videatur esse, quam secundum externa et interius; vi scilicet majore caloris genitalia in sexu masculo protrudente in externa, ubi in fœmellis nimis debilis est calor, quam ut hoc facere possit; unde accidit, quod contineantur interius.

Item *instantiæ conformes* sunt pinnæ piscium, et pedes quadrupedum, aut pedes et alæ volucrum, quibus addidit Aristoteles quatuor volumina in motu serpentum. Adeo ut in fabrica universi, motus viventium plerumque videatur expediri per quaterniones urtuum sive flexionum.

Item dentes in animalibus terrestribus, et rostra in avibus, sunt *instantiæ conformes:* unde manifestum est in omnibus animalibus perfectis fluere duram quandam substantiam versus os.

Item non absurda est similitudo et conformitas illa, ut homo sit tanquam planta inversa. Nam radix nervorum et facultatum animalium, est caput; partes autem seminales sunt infimæ, non computatis extremitatibus tibiarum et brachiorum. At in planta, radix (quæ instar capitis est) regulariter infimo loco collocatur; semina autem supremo.

Denique illud omnino præcipiendum est, et sæpius monendum; ut diligentia hominum in inquisitione et congerie naturalis historiæ deinceps mutetur plane, et vertatur in contrarium ejus, quod nunc in usu est. Magna enim hucusque, atque adeo curiosa fuit hominum industria, in notanda rerum varietate, atque explicandis accuratis animalium, herbarum, et fossilium differentiis; quarum plerœque magis sunt lusus naturæ, quam seriæ alicujus utilitatis versus scientias. Faciunt certe hujusmodi res ad delectationem, atque etiam quandoque ad praxin; verum ad introspiciendam naturam parum, aut nihil. Itaque convertenda plane est opera ad inquirendas et notandas rerum similitudines et analoga, tam in in-

tegralibus, quam partibus: illæ enim sunt, quæ naturam uniunt, et constituere scientias incipiunt.

Verum in his omnino est adhibenda cautio gravis et severa; ut accipiantur pro *instantiis conformibus* et *proportionatis* illæ, quæ denotant similitudines (ut ab initio diximus) physicas; id est, reales et substantiales, et immersas in natura; non fortuitas et ad speciem; multo minus superstitiosas aut curiosas, quales naturalis magiæ scriptores (homines levissimi, et in rebus tam seriis, quales nunc agimus, vix nominandi) ubique ostentant; magna cum vanitate et desipientia inanes similitudines et sympathias rerum describentes, atque etiam quandoque affingentes.

Verum his missis, etiam in ipsa configuratione mundi in majoribus, non sunt negligendæ *instantiæ conformes*; veluti Africa, et regio Peruviana, cum continente se porrigente usque ad fretum Magellanicum. Utraque enim regio habet similes isthmos, et similia promontoria, quod non temere accidit.

Item novus et vetus orbis; in eo quod utrique orbes versus septentriones lati sunt, et exporrecti; versus austrum autem angusti et acuminati.

Item *instantiæ conformes* nobilissimæ sunt, frigora intensa in media (quam vocant) aeris regione; et ignes acerrimi, qui sæpe reperiuntur erumpentes ex locis subterraneis; quæ duæ res sunt ultimitates et extrema; naturæ scilicet frigidi versus ambitum cœli, et naturæ calidi versus viscera terræ; per antiperistasin, sive rejectionem naturæ contrariæ.

Postremo autem in axiomatibus scientiarum, notatu digna est *conformitas instantiarum*. Veluti tropus rhetoricæ, qui dicitur *præter expectatum*, conformis est tropo musicæ, qui vocatur *declinatio cadentiæ*. Similiter, postulatum mathematicum, ut *quæ eidem tertia æqualia sunt, etiam inter se sint æqualia*, conforme est cum fabrica syllogismi in logica; qui unit ea, quæ conveniunt in medio. Denique multum utilis est in quamplurimis sagacitas quædam in conquirendis et indagandis conformitatibus, et similitudinibus physicis.

XXVIII.

Inter *prærogativas instantiarum*, ponemus septimo loco *instantias monodicas*; quas etiam *irregulares*, sive *heterochitas* (sumpto vocabulo a Grammaticis) appellare consuevimus. Eæ sunt, quæ ostendunt corpora in concreto; quæ videntur esse extravagantia, et quasi abrupta in natura, et minime convenire cum aliis rebus ejusdem generis. Etenim *instantiæ conformes* sunt similes alterius; at *instantiæ monodicæ* sunt sui similes. Usus vero *instantiarum monodicarum* est talis, qualis est *instantiarum clandestinarum*; viz. ad evehendam et uniendam naturam ad invenienda genera, sive communes naturas, limitandas postea per differentias veras. Neque enim desistendum ab inquisitione, donec proprietates et qualitates, quæ inveniuntur in hujusmodi rebus, quæ possunt censeri pro miraculis naturæ, reducantur et comprehendantur sub aliqua forma sive lege certa: ut irregularitas sive singularitas omnis reperiatur pendere ab aliqua forma communi; miraculum vero illud sit tandem solummodo in differentiis accuratis, et gradu, et concursu raro, et non in ipsa specie: ubi nunc contemplationes hominum non procedunt ultra, quam ut ponant hujusmodi res pro secretis et magnalibus naturæ, et tanquam incausabilibus, et pro exceptionibus regularum generalium.

Exempla *instantiarum monodicarum* sunt, sol et luna, inter astra; magnes, inter lapides; argentum vivum, inter metalla; elephas, inter quadrupedes; sensus veneris, inter genera tactus; odor venaticus in canibus, inter genera olfactus. Etiam S litera apud grammaticos, habetur pro monodica; ob facilem compositionem, quam sustinet cum consonantibus, aliquando duplicibus, aliquando triplicibus; quod nulla alia litera facit. Plurimi autem faciendæ sunt hujusmodi instantiæ, quia acuunt et vivificant inquisitionem, et medentur intellectui depravato a consuetudine, et ab iis quæ fiunt plerumque.

XXIX.

Inter *prærogativas instantiarum*, ponemus loco octavo *instantias deviantes*; errores scilicet naturæ, et vaga, ac monstra: ubi natura declinat et deflectit a cursu ordinario. Differunt enim errores naturæ ab *instantiis monodicis* in hoc, quod *monodicæ* sint miracula specierum, at errores sint miracula individuorum. Similis autem fere usus; quia rectificant intellectum adversus consueta, et revelant formas communes. Neque enim in his etiam desistendum ab inquisitione, donec inveniatur causa hujusmodi declinationis. Veruntamen causa illa non exurgit ad formam aliquam proprie, sed tantum ad *latentem processum* ad formam. Qui enim vias naturæ noverit, is *deviationes* etiam facilius observabit. At rursus, qui *deviationes* noverit, is accuratius vias describet.

Atque in illo differunt etiam ab *instantiis monodicis*, quod multo magis instruant praxin et operativam. Nam novas species generare arduum admodum foret; at species notas variare, et inde rara multa ac insuetata producere, minus arduum. Facilis autem transitus est a miraculis naturæ ad miracula artis. Si enim deprehendatur semel natura in variatione sua, ejusque ratio manifesta fuerit, expeditum erit eo deducere naturam per artem, quo per casum aberraverit. Neque solum eo, sed et aliorsum; eum errores ex una parte monstrent et aperiant viam ad errores et deflexiones undequaque. Hic vero exemplis non est opus, propter eorundem copiam. Faciendа enim est congeries sive historia naturalis particularis omnium monstrorum, et partuum naturæ prodigiosorum; omnis denique novitatis, et raritatis, et inconsueti in natura. Hoc vero faciendum est cum severissimo delectu, ut constet fides. Maxime autem habenda sunt pro suspectis, quæ pendent quomodocunque a religione; ut prodigia Livii: nec minus, quæ inveniuntur in scriptoribus magiæ naturalis, aut etiam alchemiæ, et hujusmodi hominibus; qui tanquam proci sunt et amatores fabularum. Sed depromenda sunt illa ex gravi et fida historia, et auditionibus certis.

XXX.

Inter *prærogativas instantiarum*, ponemus loco nono *instantias limitantes*; quas etiam *participia* vocare consuevimus. Eæ vero sunt, quæ exhibent

species corporum tales, quæ videntur esse compositæ ex speciebus duabus, vel rudimenta inter speciem unam et alteram. Hæ vero instantiæ inter *instantias monodicas* sive *heteroclitas* recte numerari possunt: sunt enim in universitate rerum raræ et extraordinariæ. Sed tamen ob dignitatem seorsum tractandæ et ponendæ sunt; optime enim indicant compositionem et fabricam rerum, et innuuat causas numeri et qaalitatis specierum ordinariarum in universo, et deducunt intellectum ab eo quod est, ad id quod esse potest.

Harum exempla sunt: muscus, inter putredinem et plantam; cometæ nonnulli, inter stellas et meteora ignita; pisces volantes, inter aves et pisces; vespertiliones, inter aves et quadrupedes; etiam

" Simia quam similis, turpissima bestia, nobis;"

et partus animalium biformes, et commixti ex speciebus diversis; et similia.

XXXI.

Inter *prærogativas instantiarum* ponemus decimo loco *instantias potestatis*, sive *fascium* (sumpto vocabulo ab insignibus imperii) qnas etiam *ingenia*, sive *manus hominis*, appellare consaevimus. Eæ sunt opera maxime nobilia et perfecta, et tanqaam ultima in unaquaque arte. Cum enim hoc agatur, præcipue ut natura pareat rebus et commodis humanis; consentaneum est prorsus, ut opera, quæ jampridem in potestate hominis fuerunt (quasi provinciæ antea occupatæ et subactæ) notentur et numerentur; præsertim ea, quæ suat maxime enucleata et perfecta; propterea quod ab istis proclivior et magis in propinquo sit transitus ad nova et hactenus non inventa. Si quis enim ab horum contemplatione attenta propositam acriter et strenue urgere velit; fiet certe, ut aut producat illa paulo longius, aut deflectat illa ad aliquid, quod finitimum est; aut etiam applicet et transferat illa ad usum aliqnem nobiliorem.

Neque hic finis. Verum quemadmodum ab operibus naturæ raris et inconsuetis erigitur intellectus, et elevatur ad inquirendas et inveniendas formas, quæ etiam illorum sunt capaces: ita etiam in operibus artis egregiis et admirandis hoc usu-venit. Idque multo magis; qaia modus efficiendi et operandi hujusmodi miracula artis, manifestus ut plurimum est; cum plerunque in miraculis naturæ sit magis obscnrus. Attamen in his ipsis cautio est adhibenda vel maxime; ne deprimeat scilicet intellectum, et eum quasi humo affligant.

Periculum enim est, ne per hujnsmodi opera artis, quæ videntur velnt summitates quædam et fastigia industriæ humanæ, reddatur intellectus attonitus et ligatus, et quasi maleficiatus quoad illa; ita ut eam aliis consuescere non possit, sed cogitet nihil ejus generis fieri posse, nisi eadem via, qua illa effecta sunt, accedente tantummodo diligentia majore, et præparatione magis accurata.

Contra illud ponendnm est pro certo: vias et modos efficiendi res et opera, quæ adhuc reperta sunt et notata, res esse plerumque pauperculas, atque omnem potentiam majorem pendere, et ordine derivari a fontibus formarum, quarum nulla adhnc inventa est.

Itaque (ut alibi diximus) qui de machinis et arietibus, quales erant apud veteres, cogitasset; licet hoc fecisset obnixe, atque ætatem in eo consumpsisset; nunqaam tamen incidisset in inventum tormentorum igneorum operantium per pulverem pyrium. Neque rarsus, qui in lanificiis et serico vegetabili observationem suam et meditationem collocasset, unquam per ea reperisset naturam vermis aut serici bombycini.

Quocirca omnia inventa, quæ eenseri possunt magis nobilia (si animum advertas) in lucem prodiere, nullo modo per pasillas enucleatioaes et extensiones artium, sed omnino per easum. Nihil autem repræsentat aut anticipat easum (cujns mos est, ut tantum per longa secula operetur) præter inventionem formarum.

Exempla autem hujusmodi instantiarum particnlaria nihil opus est addncere, propter copiam eorundem. Nsm hoc omnino agendum, nt visitentur et penitus introspiciantur omnes artes mechanicæ, atque liberales etiam (quatenus ad opera) atque inde facienda est congeries sive historia particnlaris, tnnquam magnalium et operum magistraliam, et maxime perfectorum in unaquaque ipsarum; una cum modis effectionis sive operationis.

Neque tamen astringimus diligentiam, qnæ adhibenda est in hujusmodi collecta, ad ea, quæ censentur pro magisteriis et arcanis alicujus artis tantum, atque movent admirationem. Admiratio enim proles est raritatis; siqnidem rara, licet in geaere sint ex vulgatis naturis, tamen admirationem pariunt.

At contra, quæ revera admirationi esse debent, propter discrepantiam, quæ inest illis in speeie, collatis ad alias species; tamen si in usu familiari præsto sint, leviter notantur. Debent autem notari *monodica* artis, non minus quam *monodica* naturæ; de quibus antea diximus. Atque quemadmodum in *monodicis* naturæ posuimus solem, lunam, magnetem, et similia, quæ re vulgatissima sunt, sed natura tamen fere singulari; idem et de *monodicis* artis faciendum est.

Exempli gratia; instantia *monodica* artis, est papyrus; res admodum vulgata. At si diligenter animum advertas, materiæ artificiales aut plane textiles sunt per fila directa et transversa; qualia sunt paunus sericus, aut laneus, et linteus, et hujusmodi: aut coagmentantur ex succis concretis; qualia snnt later, aut argilla figularis, aut vitrum, aut esmalta, aut porcellana, et similia; quæ, si bene naiantur, splendent; sin minus, indurantur certe, sed non splendent. Attamen omnia talia, quæ fiunt ex succis concretis, snnt fragilia; nec ullo modo hærentia et tenacia. At contra, papyrus est corpus tenax, quod scindi et lacerari possit, ita ut imitetur et fere æmuletur pellem sive membranam alicujus animalis, aut folium alicnjus vegetabilis, et hujusmodi opificia naturæ. Nam neque fragilis est, ut vitrum; neque textilis, ut pannus; sed habet fibras certe, non fila distincta, omnino ad modum materiaram naturalium: ut iater artificiales materias vix inveniatur simile aliquid, sed sit plane monodicum. Atque præferenda sane sunt in artificialibus ea, quæ maxime accedunt ad imitationem naturæ, aut e contrario eam potenter regunt et invertunt.

Rursus, inter *ingenia* et *manus hominis*, non prorsus contemnenda sunt præstigiæ et jocularia. Nonnulla enim ex istis, licet sint usu levia et ludicra, tamen informatione valida esse possunt.

Postremo: neque omnino omittenda sunt superstitiosa, et (prout vocabulum sensu vulgari accipitur) magica. Licet enim hujusmodi res sint in immensum obrutæ grandi mole mendaciorum et fabularum; tamen inspiciendum paulisper, si forte subsit et lateat in aliquibus earum aliqua operatio naturalis: ut in fascino; et fortificatione imaginationis; et consensu rerum ad distans; et transmissione impressionum a spiritu ad spiritum, non minus quam a corpore ad corpus; et similibus.

XXXII.

Ex iis, quæ ante dicta sunt, patet; quod quinque illa instantiarum genera, de quibus diximus (viz. *instantiarum conformium, instantiarum monodicarum, instantiarum deviantium, instantiarum limitanearum, instantiarum potestatis*) non debeant reservari, donec inquiratur natura aliqua certa (quemadmodum instantiæ reliquæ, quas primo loco proposuimus, necnon plurimæ ex iis, quæ sequentur, reservari debent) sed statim jam ab initio facienda est earum collectio, tanquam historia quædam particularis; eo quod digerant ea, quæ ingrediuntur intellectum, et corrigant pravam complexionem intellectus ipsius, quem omnino necesse est imbui, et infici, et demum perverti ac distorqueri ab ineursibus quotidianis et consuetis.

Itaque adhibendæ sunt eæ instantiæ tanquam præparativum aliquod ad rectificandum et expurgandum intellectum. Quicquid enim abduxit intellectum a consuetis, æquat et complanat aream ejus, ad recipiendum lumen siccum et purum notionum verarum.

Quin etiam hujusmodi instantiæ sternunt et præstruunt viam ad operativam; ut suo loco dicemus, quando de *deductionibus ad praxin* sermo erit.

XXXIII.

Inter *prærogativas instantiarum* ponemus loco undecimo *instantias comitatus*, atque *hostiles;* quas etiam *instantias propositionum fixarum* appellare consuevimus. Eæ sunt instantiæ, quæ exhibent aliquod corpus sive coneretum tale, in quo natura inquisita perpetuo sequatur tanquam comes quidam individuus: aut contra, in quo natura inquisita perpetuo fugiat, atque ex *comitatu* excludatur, ut hostis et inimicus. Nam ex hujusmodi instantiis formantur propositiones certæ et universales; aut *affirmativæ*, aut *negativæ:* in quibus subjectum erit tale corpus in concreto, prædicatum vero natura ipsa inquisita. Etenim propositiones particulares omnino *fixæ* non sunt, ubi scilicet natura iniquisita reperitur in aliquo concreto fluxa et mobilis; viz. accedens, sive acquisita; aut rursus recedens, sive deposita. Quocirca particulares propositiones non habent *prærogativam* aliquam majorem, nisi tantum in casu *migrationis;* de quo antea dictum est. Et nihilominus, etiam particulares illæ propositiones comparatæ et collatæ cum universalibus, multum juvant; ut suo loco dicetur. Neque tamen, etiam in universalibus istis propositionibus exactam aut absolutam affirmationem vel abnegationem requirimus. Sufficit enim ad id, quod agitur, etiam si exceptionem nonnullam singularem aut raram patiantur.

Usus autem *instantiarum comitatus* est ad angustandam *affirmativam* formæ. Quemadmodum enim in *instantiis migrantibus* angustatur *affirmativa* formæ; viz. ut necessario poni debeat forma rei esse aliquid, quod per actum illum *migrationis* inditur aut destruitur: ita etiam in *instantiis comitatus* angustatur *affirmativa* formæ; ut necessario poni debeat forma rei esse aliquid, quod talem conexionem corporis subingrediatur, aut contra ab eadem abhorreat; ut qui bene norit constitutionem aut schematismum hujusmodi corporis, non longe abfuerit ab extrahenda in lucem forma naturæ inquisitæ.

Exempli gratia; sit natura inquisita, calidum. *Instantia comitatus* est flamma. Etenim in aqua, aëre, lapide, metallo, et aliis quamplurimus, calor est mobilis, et accedere potest et recedere: at omnis flamma est calida, ita ut calor in concretione flammæ perpetuo sequatur. At *instantia hostilis* calidi nulla reperitur apud nos. Nam de visceribus terræ nihil constat ad sensum; sed eorum corporum, quæ nobis nota sunt, nulla prorsus est concretio, quæ non est susceptibilis caloris.

At rursus, sit natura inquisita, consistens: *instantia hostilis* est aër. Etenim metallum potest fluere, potest consistere; similiter vitrum, etiam aqua potest consistere, cum congleiatur: at impossibile est, ut aër unquam consistat, aut exuat fluorem.

Verum de *instantiis* hujusmodi *propositionum fixarum* supersunt duo monita, quæ utilia sunt ad id quod agitur. Primum, ut si defuerit plane universalis *affirmativa* aut *negativa*, illud ipsum diligenter notetur tanquam non ens: sicut fecimus de calido, ubi universalis negativa (quatenus ad entia, quæ ad nostram notitiam pervenerint) in rerum natura deest. Similiter, si natura inquisita sit æternum aut incorruptibile; deest affirmativa universalis hic apud nos. Neque enim prædicari potest *æternum* aut *incorruptibile* de aliquo corpore eorum, quæ infra cœlestia sunt, aut supra interiora terræ. Alterum monitum est, ut propositionibus universalibus, tam affirmativis quam negativis, de aliquo concreto, subjungantur simul ea concreta, quæ proxime videntur accedere ad id quod est ex non-entibus: ut in calore, flammæ mollissimæ et minimum adurentes; in incorruptibili, aurum, quod proxime accedit. Omnia enim ista indicant terminos naturæ inter ens et non ens; et faciunt ad circumscriptiones formarum, ne gliscant et vagentur extra conditiones materiæ.

XXXIV.

Inter *prærogativas instantiarum*, ponemus loco duodecimo ipsas illas *instantias subjunctivas*, de quibus in superiori aphorismo diximus: quas etiam *instantias ultimatas* sive *termini* appellare consuevimus. Neque enim hujusmodi instantiæ utiles sunt tantum, quatenus subjunguntur propositionibus fixis; verum etiam per se et in proprietate sua. Indicant enim non obscure veras sectiones naturæ, et mensuras rerum, et illud *quousque* natura quid faciat et ferat, et deinde transitus naturæ ad alind. Talia sunt; aurum, in pondere; ferrum, in duritie; cete,

in quantitate animalium; canis, in odore; inflammatio pulveris pyrii, in expansione celeri; et alia id genus. Nec minus exhibenda sunt ea, quæ sunt ultima gradu infimo, quam quæ supremo: ut spiritus vini, in pondere; sericum, in mollitie; vermiculi cutis, in quantitate animalium; et cætera.

XXXV.

Inter *prærogativas instantiarum*, ponemus loco decimo tertio *instantias fœderis* sive *unionis*. Eæ sunt, quæ confundunt et adunant naturas, quæ existimantur esse heterogeneæ; et pro talibus notantur et signantur per divisiones receptas.

At *instantiæ fœderis* ostendunt operationes et effectus, quæ deprehendantur alicui ex illis heterogeneis ut propria, competere etiam aliis ex heterogeneis; ut convincatur ista heterogenea (quæ in opinione est) vera non esse, aut essentialis; sed nil aliud esse, quam modificatio naturæ communis. Optimi itaque sunt usus ad elevandum et evehendum intellectum a differentiis ad genera, et ad tollendum larvas et simulacra rerum, prout occurrunt et prodeunt personatæ in substantiis concretis.

Exempli gratia: sit natura inquisita, calidum. Omnino videtur esse divisio solennis et authentica, quod sint tria genera caloris: videlicet calor cœlestium, calor animalium, et calor ignis: quodque isti calores (præsertim unus ex illis, comparatus ad reliquos duos) sint ipsa essentia et specie, sive natura specifica, differentes et plane heterogenei: Quandoquidem calor cœlestium et animalium generet et foveat, at calor ignis contra corrumpat et destruat. Est itaque *instantia fœderis* experimentum illud satis vulgatum, cum recipitur ramus aliquis vitis intra domum ubi sit focus assiduus, ex quo maturescunt uvæ, etiam mense integro citius quam foras: Ita ut maturatio fructus etiam pendentis super arborem fieri possit, scilicet ab igne, cum hoc ipsum videatur esse opus proprium solis. Itaque ab hoc initio facile insurgit intellectus, repudiata heterogenea essentiali, ad inquirendum quæ sint differentiæ illæ, quæ revera reperiuntur inter calorem solis et ignis, ex quibus fit, ut eorum operationes sint tam dissimiles, utcunque illi ipsi participent ex natura communi.

Quæ differentiæ reperientur quatuor: vis. primu, quod calor solis, respectu caloris ignis, sit gradu longe elementior et lenior; secundo, quod sit (præsertim ut defertur ad nos per aërem) qualitate multo humidiur; tertio (quod caput rei est) quod sit summe inæqualis; atque accedens et anetus, et deinceps recedens et diminutus: id quod maxime confert ad generationem corporum. Recte enim asseruit Aristoteles, causam principalem generationum et corruptionum, quæ fiunt hic apud nos in superficie terræ, esse viam obliquam solis per zodiacum: unde calor sulis, partim per vicissitudines diei et noctis, partim per successiones æstatis et hiemis, evadit miris modis inæqualis. Neque tamen desinit ille vir, id quod ab eo recte inventum fuit, statim corrumpere et depravare. Nam ut arbiter scilicet naturæ (quod illi in more est) valde magistraliter assignat causam generationis accessui solis; causam autem corruptionis, recessui: cum utraque res (necessus videlicet solis, et recessus) non respective, sed quasi indifferenter præbeat causam tam generationi quam corruptioni: quandoquidem inæqualitas caloris, generationi et corruptioni rerum; æqualitas, conservationi tantum ministret. Est et quarta differentia inter calorem solis et ignis, magni prorsus momenti: viz. quod sol operationes suas insinuet per longa temporis spatia; ubi operationes ignis (urgente hominum impatientia) per breviora intervalla ad exitum perducantur. Quod si quis id sedulo agat, ut calorem ignis attemperet et reducat ad gradum moderatiorem et leniorem (quod multis modis facile fit); deinde etiam inspergat et admisceat nonnullam humiditatem; maxime autem si imitetur calorem solis inæqualitate; postremo, si moram patienter tuleret (non certe eam, quæ sit proportionata operibus solis; sed largiorem, quam homines adhibere solent in operibus ignis) is facile missam faciet heterogeniam illam caloris: et vel tentabit, vel exæquabit, vel in aliquibus vincet opera solis, per calorem ignis. Similis *instantia fœderis* est, resuscitatio papilionum, ex frigore stupentium et tanquam emortuarum, per exiguum teporem ignis: ut facile cernas, non magis negatum esse igni, vivificare animantia, quam maturare vegetabilia. Etiam inventum illud celebre Fracastorii de sartagine acriter calefacta, qua circumdant medici capita apoplecticorum desperatorum, expandit manifeste spiritus animales, ab humoribus et obstructionibus cerebri compressos et quasi extinctos; illosque ad motum excitat, non aliter quam ignis operatur in aquam aut aërem; et tamen per consequens vivificat. Etiam ova aliquando excluduntur per calorem ignis; id quod prorsus imitatur calorem animalem; et complura ejusmodi: ut nemo dubitare possit, quin calor ignis in multis subjectis modificari possit ad imaginem caloris cœlestium et animalium.

Similiter sint naturæ inquisitæ, motus et quies. Videtur esse divisio solennis atque ex intima philosophia, quod corpora naturalia vel rotent, vel ferantur recta, vel stent sive quieseant. Aut enim est motus sine termino, aut statio in termino, aut latio ad terminum. At motus ille perennis rotationis, videtur esse cœlestium proprius: Statio, sive quies, videtur competere globo ipsi terræ: At corpora cætera (gravia quæ vocant, et levia; extra locu scilicet connaturalitatis suæ sita) feruntur recta ad massas sive congregationes similium; levia sursum, versus ambitum cœli; gravia deorsum, versus terram. Atque ista pulchra dictu sunt.

At *instantia fœderis* est cometa aliquis humilior; qui cum sit longe infra cœlum, tamen rotat. Atque commentum Aristotelis, de alligatione sive sequacitate cometæ ad astrum aliquod, jampridem explosum est; non tantum quia ratio ejus non est probabilis, sed propter experientiam manifestam discursus et irregularis motus cometarum per varia loca cœli.

At rursus alia *instantia fœderis* circa hoc subjectum, est motus aëris; qui intra tropicos (ubi circuli rotationis sunt majores) videtur et ipse rotare ab oriente in occidentem.

Et alia rursus *instantia* foret fluxus et refluxus maris, si modo aquæ ipsæ deprehendantur ferri motu rotationis (licet tardo et evanido) ab oriente in occi-

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dentem; ita tamen, ut bis in die repercutiantur. Itaque si hæc ita se habeant, manifestum est motum istum rotationis non terminari in cœlestibus, sed communicari aëri et aquæ.

Etiam ista proprietas levium, nimirum ut ferantur sursum, vacillat nonnihil. Atque in hoc, sumi potest pro *instantia fœderis*, bulla aquæ. Si enim aër fuerit subter aquam, ascendit rapide versus superficiem aquæ, per motum illum *plagæ* (quam vocat Democritus) per quam aqua descendens percutit et attollit aërem sursum; non autem per contentionem aut nixum aëris ipsius. Atqui ubi ad superficiem ipsam aquæ ventum fuerit, tum cohibetur aër ab ulteriore ascensu per levem resistentiam, quam reperit in aqua non statim tolerante se discontinuari: ita ut exilis admodum sit appetitus aëris ad superiora.

Similiter sit natura inquisita, pondus. Est plane divisio recepta; ut densa et solida ferantur versus centrum terræ, rara autem et tenuia versus ambitum cœli; tanquam ad loca sua propria. Atque loca quod attinet (licet in scholis hujusmodi res valeant) plane inepta et puerilis cogitatio est, locum aliquid posse. Itaque nugantur philosophi, cum dicunt, quod, si perforata esset terra, corpora gravia se sisterent quando ventum esset ad centrum. Esset enim certe virtuosum plane et efficax genus nihili, aut puncti mathematici; quod aut alia afficeret, aut rursus quod alia appeterent: corpus enim non nisi a corpore patitur. Verum iste appetitus ascendendiet descendendi, aut est in schematismo corporis quod movetur, aut in sympathia sive consensu cum alio corpore. Quod si inveniatur aliquod corpus densum et solidum, quod nihilominus non feratur ad terram; confunditur hujusmodi divisio. At si recipiatur opinio Gilberti, quod magnetica vis terræ ad alliciendum gravia, non extendatur ultra orbem virtutis suæ (quæ operatur semper ad distantiam certam, et non ultra) hocque per aliquam instantiam verificetur; ea demum erit *instantia fœderis* circa hoc subjectum. Neque tamen occurrit impræsentiarum aliqua instantia super hoc certa et manifesta. Proxime videntur accedere cataractæ cœli, quæ in navigationibus per oceanum Atlanticum versus Indias utrasque sæpe conspiciuntur. Tanta enim videtur esse vis et moles aquarum, quæ per hujusmodi cataractas subito effunditur, ut videatur collectio aquarum fuisse ante facta, atque in his locis hæsisse et mansisse, et postea potius per causam violentam dejecta et detrusa esse, quam naturali motu gravitatis cecidisse: adeo ut conjici possit corpoream molem, densam atque compactam, in magna distantia a terra, fore pensilem tanquam terram ipsam; nec casuram, nisi dejiciatur. Verum de hoc nil certi affirmamus. Interim in hoc, et in multis aliis facile apparebit, quam inopes simus historiæ naturalis, cum loco instantiarum certarum, nonnunquam suppositiones afferre pro exemplis cogamur.

Similiter sit natura inquisita, discursus ingenii. Videtur omnino divisio vera, rationis humanæ, et solertiæ brutorum. Attamen sunt nonnullæ instantiæ actionum, quæ eduntur a brutis, per quas videntur etiam bruta quasi syllogizare: ut memoriæ proditum est de corvo; qui per magnas siccitates fere enectus siti, conspexit aquam in trunco cavo arboris; atque cum non daretur ei intrare propter angustias, non cessavit jacere multos lapillos, per quos surgeret et ascenderet aqua, ut bibere posset; quod postea cessit in proverbium.

Similiter sit natura inquisita, visibile. Videtur omnino esse divisio vera et certa, lucis, quæ est visibile originale, et primam copiam facit visui: et coloris, qui est visibile secundarium, et sine luce non cernitur, ita ut videatur nil aliud esse, quam imago aut modificatio lucis. Attamen ex utraque parte circa hoc videntur esse *instantiæ fœderis*; scilicet, nix in magna quantitate, et flamma sulphuris: in quarum altera videtur esse color primulum lucens, in altera lux vergens ad colorem.

XXXVI.

Inter prærogativas instantiarum ponemus loco decimo quarto *instantias crucis*, translato vocabulo a *crucibus*, quæ erectæ in biviis, indicant et signant viarum separationes. Has etiam *instantias decisorias* et *judiciales*, et in casibus nonnullis, *instantias oraculi* et *mandati*, appellare consuevimus. Earum ratio talis est. Cum in inquisitione naturæ alicujus, intellectus ponitur tanquam in æquilibrio, ut incertus sit, utri naturarum e duabus, vel quandoque pluribus, causa naturæ inquisitæ attribui aut assignari debeat, propter complurium naturarum concursum frequentem et ordinarium; *instantiæ crucis* ostendunt consortium unius ex naturis (quoad naturam inquisitam) fidum et indissolubile, alterius autem varium et separabile; unde terminatur quæstio, et recipitur natura illa prior pro causa, missa altera et repudiata. Itaque hujusmodi instantiæ sunt maximæ lucis, et quasi magnæ auctoritatis: ita ut curriculum interpretationis quandoque in illas desinat, et per illas perficiatur. Interdum autem *instantiæ crucis* illæ occurrunt, et inveniuntur inter jampridem notatas; at ut plurimum novæ sunt, et de industria atque ex composito quæsitæ et applicatæ, et diligentia sedula et acri tandem erutæ.

Exempli gratia; sit natura inquisita fluxus et refluxus maris, ille bis repetitus in die, atque sexhorarius, in accessibus et recessibus singulis, cum differentia nonnulla, que coincidit in modum lunæ: bivium circa hanc naturam tale est.

Necesse prorsus est, ut iste motus efficiatur, vel ab aquarum progressu et regressu, in modum aquæ in pelvi agitatæ, quæ quando latus unum pelvis alluit, deserit alterum; vel a sublatione et subsidentia aquarum e profundo, in modum aquæ ebullientis, et rursus subsidentis: utri vero causæ fluxus et refluxus ille assignari debeat, oritur dubitatio. Quod si recipiatur prior assertio, necesse est, ut cum sit fluxus in mari ex una parte, fiat sub idem tempus alicubi in mari refluxus ex alia. Itaque ad hoc reducitur inquisitio. Atqui observavit Acosta, cum aliis nonnullis (diligenti facta inquisitione) quod ad littora Floridæ, et ad littora adversa Hispaniæ, et Africæ, fiant fluxus maris ad eadem tempora, et refluxus itidem ad eadem tempora; non contra, quod cum fluxus fit ad littora Floridæ, fiat refluxus ad littora Hispaniæ et Africæ. Attamen adhuc diligentius attendenti, non per hoc evincitur motus attollens, et abnegatur motus in progressu. Fieri enim potest, quod sit motus aquarum in pro-

gressn, et nihilominus innndet adversa littora ejusdem alvei simnl; si aquæ scilicet illæ contrudantur et compellantur aliunde; quemadmodum fit in fluviis, qui flunnt et refluunt ad utrumqne littus horis iisdem, cum tamen iste motus liquido sit motus in progressu, nempe aqnarum ingredientium ostia fluminum ex mari. Itaque simili modo fieri potest, ut aqoæ venientes magna mole ab oceano orientali Indico, compellantur et trudantur in alveum maris Atlantici, et propterea inundent utrumque latus simul. Quærendum itaque est, an sit alius alveus, per quem aquæ possint iisdem temporibus minui et refluere. Atque præsto est mare australe, mari Atlantico neutiquam minus, sed potius magis latum et extensum, quod ad hoc sufficere possit.

Itaqne jam tandem perventum est ad *instantiam crucis* circa hoc subjectum: ea talis est. Si pro certo inveniatur, quod cum fit fluxus ad littora adversa tam Floridæ, quam Hispaniæ, in mari Atlantico; fiat simul fluxus ad littora Peruviæ, et juxta dorsum Chinæ in mari australi; tum certe per hanc *instantiam decisoriam* abjudicanda est assertio, qnod fluxus et refluxus maris, de quo inquiritur, fiat per motum progressivum. Neque enim relinquitur aliud mare, aut locus, ubi possit ad eadem tempora fieri regressus aut refluxus. Commodissime autem hoc sciri possit, si inqniratur ab incolis Panamæ et Limæ (ubi uterque oceanus, Atlanticus et australis, per parvum isthmum separantur) utrum ad contrarias isthmi partes fiat simul fluxus et refluxus maris, an e contra. Verum hæc decisio, sive abjudicatio certa videtur, posito quod terra stet immobilis. Quod si terra rotet, fieri fortasse potest, ut ex inæquali rotatione (quatenus ad celeritatem sive incitationem) terræ et aquarum maris, sequatur compulsio violenta aquarum in cumulum sursum, quæ sit fluxus; et relaxatio earundem (postquam amplius cumulari non sustinuerint) in deorsum, quæ sit refluxus. Verum de hoc facienda est inquisitio separatim. Attamen etiam hoc supposito, illud æque manet fixum, quod necesse sit fieri alicubi reflnxum maris ad eadem tempora, quibus fiunt fluxus in aliis partibus.

Similiter sit natura inquisita, posterior ille motus ex duobus, qnos supposuimus; videlicet motus maris se attollens, et rursus subsidens: si forte ita acciderit, nt (diligenti facto examine) rejiciatur motus alter, de quo diximus, progressivus; tnm vero erit trivium circa hanc naturam tale. Necesse est, ut motus iste, per quem aquæ in fluxibus et reflnxibns se attollunt, et rursus relabuntur, absque aliqua accessione aquarum aliarum, quæ advolvuntur, fiat per unum ex his tribus modis; vel qnod ista aquarum copia emanet ex interioribus terræ, et rursus in illa se recipiat; vel quod non sit aliqna amplior moles aquarum, sed qnod eædem aquæ (non aucto quanto suo) extendantur, sive rarefiant, ita ut majorem locum et dimensionem occnpent, et rursus se contrahant; vel quod nec copia accedat major, nec extensio amplior, sed eædem aquæ (prout sunt, tam copia, quam densitate aut raritate) per vim aliquam magneticam desuper eas attrahentem, et evocantem, et per consensum se attollant, et deinde se remittant. Itaque redncatur (si placet) jam inquisitio (missis duobus illis motibus prioribus) ad hunc oltimum; et inquiratur si fiat aliqna talis sublatio per consensum, sive vim magneticam. Atqni primo manifestum est universas aquas, pront ponuntur in fossa sive cavo maris, non posse simul attolli, quia defuerit quod succedat in fundo; adeo ut si foret in aquis aliquis hujusmodi appetitus se attollendi, ille ipse tamen a nexn rerum, sive (ut vulgo loquuntur) ne detur vacuum, fractus foret et cohibitus. Relinquitur, nt attollantur aquæ ex aliqua parte, et per hoc minuantur et cedant ex alia. Enimvero rursus necessario sequetur, ut via illa magnetica, cum super totum operari non possit, circa medium operetur intensissime; ita ut aqnas in medio attollat; illæ vero sublatæ, latera per successionem deserant et destituant.

Itaque jam tandem perventum est ad *instantiam crucis* circa hoc subjectum: ea talis est. Si inveniatur, quod in refluxibus maris aqnarum superficies in mari sit arcnata magis et rotunda, attollentibus se scilicet aquis in medio maris, et deficientibus circa latera, quæ sunt littora, et in fluxibus eadem superficies sit magis plana et æqua, redeuntibus scilicet aquis ad priorem suam positionem; tum certe per hanc *instantiam decisoriam* potest recipi sublatio per vim magneticnm; aliter prorsus abjudicanda est. Hoc vero in fretis per lineas nauticas non difficile est experiri; videlicet utrum in refluxibus versus medium maris mare non sit magis altum sive profundum, quam in fluxibus. Notandnm antem est, si hoc ita sit, fieri (contra ac creditur) ut attollant se aquæ in refluxibus, demittant se tantum in fluxibus, ita ut littora vestiant et inundent.

Similiter, sit natura inquisita, motns rotationis spontaneus; et speciatim, utrum motus diurnus, per quem sol et stellæ ad conspectum nostrum oriuntur et occidunt, sit motus rotationis verus in cœlestibus; aut motus apparens in cœlestibus, verus in terra. Poterit esse *instantia crucis* super hoc subjectum talis. Si inveniatur motus aliquis in oceano ab oriente in occidentem, licet admodum languidus et enervatus; si idem motus reperiatur paulo incitatior in aëre, præsertim intra tropicos, ubi propter majores circulos est magis perceptibilis; si idem motus reperiatur in humilioribus cometis, jam factus vivus et validus; si idem motus reperiatur in planetis, ita tamen dispensatus et graduatus, ut quo propius absit a terra, sit tardior; quo longius, celerior, atque in cœlo demum stellato sit velocissimus; tum certe recipi debet motus diurnus pro vero in cœlis, et abnegandus est motus terræ; quia manifestom erit, motum ab oriente in occidentem esse plane cosmicum, et ex consensu universi, qui in summitatibus cœli maxime rapidos, gradatim labascat, et tandem desinat, et extinguatur in immobili, videlicet terra.

Similiter, sit natura inquisita, motus rotationis ille alter apud astronomos decantatus, renitens et contrarius motni dinrno, videlicet ab occidente in orientem, quem veteres astronomi attribuunt planetis, etiam cœlo stellato; at Copernicus et ejus sectatores, terræ qnoque; et quæratur, utrum inveniatur in rerum natura aliquis talis motus, an potius res confieta sit et supposita, ad compendia et commoditatis calculationum, et ad pulchrum illud, scilicet de ex-

pediendis motibus cœlestibus per circulos perfectos. Neutiquam enim evincitur iste motus esse in supernis verus et realis, nec per defectum restitutionis planetæ in motu diurno ad idem punctum cœli stellati, nec per diversam politatem sodiaci, habito respectu ad polos mundi, quæ duo nobis hunc motum pepererunt. Primum enim phænomenon per anteversionem et derelictionem optime salvatur; secundum, per lineas spirales; adeo ut inæqualitas restitutionis, et declinatio ad tropicos, possint esse potius modificationes motus unici illius diurni, quam motus renitentes, aut circa diversos polos. Et certissimum est, si paulisper pro plebeiis nos geramus (missis astronomorum et scholæ commentis, quibus illud in more est, ut sensui in multis immerito vim faciant, et obscuriora malint) talem esse motum istum ad sensum, qualem diximus; cujus imaginem per fila ferrea (veluti in machina) aliquando repræsentari fecimus.

Verum *instantia crucis* super hoc subjectum poterit esse talis. Si inveniatur in aliqua historia fide digna, fuisse cometam aliquem, vel sublimiorem vel humiliorem, qui non rotaverit cum consensu manifesto (licet admodum irregulariter) motus diurni, sed potius rotaverit in contrarium cœli; tum certe hucusque judicandum est, posse esse in natura aliquem talem motum. Sin nihil hujusmodi inveniatur, habendus est pro suspecto, et ad alias *instantias crucis* circa hoc confugiendum.

Similiter, sit natura inquisita, pondus sive grave. Bivium circa hanc naturam tale est. Necesse est, ut gravia et ponderosa vel tendant ex natura sua ad centrum terræ, per proprium schematismum; vel ut a massa corporea ipsius terræ, tanquam a congregatione corporum connaturalium, attrahantur et rapiantur, et ad eam per consensum ferantur. At posterius hoc si in causa sit, sequitur, ut quo propius gravia appropinquant ad terram, eo fortius et majore cum impetu ferantur ad eam; quo longius ab ea absint, debilius et tardius (ut fit in attractionibus magneticis) idque fieri intra spatium certum; adeo ut si elongata fuerint a terra tali distantia, ut virtus terræ in ea agere non possit, pensilia mansura sint, ut et ipsa terra, nec omnino decasura.

Itaque talis circa hanc rem poterit esse *instantia crucis*. Sumatur horologium ex iis, quæ moventur per pondera plumbea; et aliud ex iis, quæ moventur per compressionem laminæ ferreæ; atque vere probentur, ne alterum altero velocius sit, aut tardius; deinde ponatur horologium illud movens per pondera, super fastigium alicujus templi altissimi, altero illo infra detento; et notetur diligenter, si horologium in alto situm tardius moveatur, quam solebat, propter diminutam virtutem ponderum. Idem fiat experimentum in profundis miuerarum, alte sub terra depressarum; utrum horologium hujusmodi non moveatur velocius, quam solebat, propter auctam virtutem ponderum. Quod si inveniatur virtus ponderum minui in sublimi, aggravari in subterraneis; recipiatur pro causa ponderis attractio a massa corporea terræ.

Similiter, sit natura inquisita, vertibilitas acus ferreæ, tactæ magnete. Circa hanc naturam tale erit bivium. Necesse est, ut tactus magnetis vel ex se indat ferro verticitatem ad septentriones et austrum; vel ut excitet ferrum tantummodo et habilitet: motus autem ipse indatur ex præsentia terræ, ut Gilbertus opinatur, et tanto conatu probare nititur. Itaque huc spectant ea, quæ ille perspicaci industria conquisivit. Nimirum quod clavus ferreus, qui diu duravit in situ versus septentriones et austrum, colligat mora diutina verticitatem, absque tactu magnetis: ac si terra ipsa, quæ ob distantiam debiliter operatur (namque superficies aut extima incrustatio terræ virtutis magneticæ, ut ille vult, expers est) per moram tamen longam magnetus tactum suppleret, et ferrum excitet, deinde excitum conformaret et verteret. Rursus, quod ferrum ignitum et candens, si in extinctione sua exporrigatur inter septentriones et austrum, colligat quoque verticitatem absque tactu magnetis: ac si partes ferri in motu positæ per ignitionem, et postea se recipientes, in ipso articulo extinctionis suæ magis essent susceptivæ, et quasi sensitivæ, virtutis manantis a terra, quam alias; et inde fierent tanquam excitæ. Verum hæc, licet bene observata, tamen non evincunt prorsus, quod ille asserit.

Instantia crucis autem circa hoc subjectum poterit esse talis. Capiatur terrella ex magnete, et notentur poli ejus; et ponantur poli terrellæ versus orientem et occasum, non versus septentriones et austrum, atque ita jaceant; deinde superponatur acus ferrea intacta, et permittatur ita manere ad dies sex aut septem. Acus vero (nam de hoc non dubitatur) dum manet super magnetem, relictis polis mundi, se vertet ad polos magnetis. Itaque quamdiu ita manet, vertitur scilicet ad orientem et occidentem mundi. Quod si inveniatur acus illa, remota a magnete, et posita super versorium, statim se applicare ad septentriones et austrum, vel etiam paulatim se eo recipere; tum recipienda est pro causa, præsentia terræ: sin autem vertatur (ut prius) in orientem et occidentem, aut perdat verticitatem, habenda est illa causa pro suspecta, et ulterius inquirendum est.

Similiter, sit natura inquisita, corporea substantia lunæ; an sit tenuis, flammea, sive aërea, ut plurimi ex priscis philosophis opinati sunt; an solida et densa, ut Gilbertus et multi moderni, cum nonnullis ex antiquis, tenent. Rationes posterioris istius opinionis fundantur in hoc maxime, quod luna radios solis reflectat; neque videtur fieri reflexio lucis nisi a solidis.

Itaque *instantiæ crucis* circa hoc subjectum eæ esse poterunt (si modo aliquæ sint) quæ demonstrent reflexionem a corpore tenui, qualis est flamma, modo sit crassitiei sufficientis. Certe causa crepusculi inter alias est reflexio radiorum solis a superiore parte aëris. Etiam quandoque reflecti videmus radios solis temporibus vespertinis serenis, a fimbriis uubium roscidarum, non minori splendore, sed potius illustriori et magis glorioso, quam qui redditur a corpore lunæ; neque tamen constat eas nubes coaluisse in corpus densum aquæ. Etiam videmus aërem tenebrosum pone fenestras noctu reflectere lucem candelæ, non minus quam corpus densum. Tentandum etiam foret experimentum immissionis radiorum solis per foramen, super flammam aliquam subfuscam et cœruleam. Sane radii aperti solis in-

eidentes in flammas obscuriores videntur eas quasi mortificare, ut conspiciantur magis instar fumi albi, quam flammæ. Atque hæc impræsentiarum occurrunt, quæ sint ex natura *instantiarum crucis* circa hanc rem; et meliora fortasse reperiri possunt. Sed notandum semper est, reflexionem a flamma non esse expectandam, nisi a flamma alicujus profunditatis: nam aliter vergit ad diaphanum. Hoc autem pro certo ponendum, lucem semper in corpore æquali, aut excipi et transmitti, aut resilire.

Similiter, sit natura inquisita, motus missilium; veluti spiculorum, sagittarum, globulorum, per aërem. Hunc motum schola (more suo) valde negligenter expedit; satis habens, si eum nomine motus violenti a naturali (quem vocant) distinguat: et quod ad primam pereussionem sive impulsionem attinet, per illud *(quod duo corpora non possint esse in uno loco, ne fiat penetratio dimensionum)* sibi satisfaciat; et de processu continuato istius motus nihil euret. At circa hanc naturam bivium est tale: aut iste motus fit ab aëre vehente, et pone corpus emissum se colligente, instar fluvii erga scapham, aut venti erga paleas; aut a partibus ipsius corporis non sustinentibus impressionem, sed ad eandem laxandam per successionem se promoventibus. Atque priorem illum recipit Fraeastorius, et fere omnes qui de hoc motu paulo subtilius inquisiverunt: neque dubium est, quin sint aëris partes in hac re nonnullæ; sed alter motus proculdubio verus est, ut ex infinitis constat experimentis. Sed inter cæteras poterit esse circa hoc subjectum *instantia crucis* talis; quod lamina aut filum ferri paulo contumacius; vel etiam calamus sive penna in medio divisa, addueta et eurvata inter pollicem et digitum, exiliant. Manifestum enim est, hoc non posse imputari aëri se pone corpus colligenti, quia fons motus est in medio laminæ vel calimi, non in extremis.

Similiter, sit natura inquisita, motus ille rapidus et potens expansionis pulveris pyrii in flammam; unde tantæ moles subvertuntur, tanta pondera emittuntur, quanta in cunieulis majoribus et bombardis videmus. Bivium circa hane naturam tale est: aut exeitatur iste motus a mero corporis appetitu se dilatandi, postquam fuerit inflammatum; aut ab appetitu mixto spiritus erudi, qui rapide fugit ignem, et ex eo eircumfuso, tanquam ex careere, violenter erumpit. Sehola autem et vulgaris opinio tantum versatur circa priorem illum appetitum. Putant enim homines se pulehre philosophari, si asserant flammam ex forma elementi neeessitate quadam donari, locum ampliorem oeeupandi, quam idem corpus expleverat, cum subiret formam pulveris, atque inde sequi motum istum. Interim minime advertunt, liect hoe verum sit, posito quod flamma generetur, tamen posse impediri flammæ generationem a tanta mole, quæ illam comprimere et suffocare queat; ut non deducatur res ad istam necessitatem, de qua loquuntur. Nam quod necesse sit fieri expansionem, atque inde sequi emissionem, aut remissionem corporis quod obstat, si generetur flamma; reete putant. Sed ista neeessitas plane evitatur, si moles illa solida flammam supprimat, antequam generetur. Atque videmus flammam, præsertim in prima generatione, mollem esse et lenem, et requirere cavum, in quo experiri et ludere possit. Itaque tanta violentia huie rei per se assignari non potest. Sed illud verum; generationem hujusmodi flammarum flatulentarum, et veluti ventorum igneorum, fieri ex conflictu duorum corporum, eorumque naturæ inter se plane contrariæ; alterius admodum inflammabilis, quæ natura viget in sulphure; alterius flammam exhorrentis, qualis est spiritus erudus, qui est in nitro; adeo ut fiat conflictus mirabilis, inflammante se sulphure quantum potest (nam tertium corpus, nimirum earbo salicis, nil aliud fere præstat, quam ut illa duo corpora incorporet, et commode uniat) et erumpente spiritu nitri quantum potest, et una se dilatante (nam hoc faeiunt et aër, et omnia eruda, et aqua, ut a ealore dilatentur) et per istam fugam et eruptionem, interim flammam sulphuris, tanquam follibus oeeultis, undequaque exsufflante.

Poterant autem esse *instantiæ crucis* eirea hoc subjectum duorum generum. Alterum eorum corporum, quæ maxime sunt inflammabilia, qualia sunt sulphur, eaphura, naphtha, et hujusmodi, eum eorum misturis; quæ eitius et faeilius eoneipiunt flammam quam pulvis pyrius, si non impediantur: ex quo liquet appetitum inflammandi per se effeetum illum stupendum non operari. Alterum eorum, quæ flammam fugiunt et exhorrent, qualia sunt sales omnes. Videmus enim, si jaciantur in ignem, spiritum aqueum erumpere eum fragore, antequam flamma concipiatur, quod etiam leniter fit in foliis paulo contumacioribus, parte aquea erumpente, antequam oleosa concipiat flammam. Sed maxime cernitur hoe in argento vivo, quod non male dieitur aqua mineralis. Hoc enim absque inflammatione, per eruptionem et expansionem simpliem, vires pulveris pyrii fere adæquat; quod etiam admixtum pulveri pyrio, ejus vires multiplieare dieitur.

Similiter, sit natura inquisita, transitoria natura flammæ, et extinetio ejus momentanea. Non enim videtur natura flammea hic apud nos figi et eonsistere, sed singulis quasi momentis generari, et statim extingui. Manifestum enim est in flammis, quæ hie continuantur et durant, istam durationem non esse ejusdem flammæ in individuo, sed fieri per successionem novæ flammæ seriatim generatæ, minime autem manere eandem flammam numero; id quod facile perspicitur ex hoc, quod substraeto alimento sive fomite flammæ, flamma statim pereat. Bivium autem eirca hanc naturam tale est. Momentanea ista natura aut fit remittente se causa, quæ eam primo genuit, ut in lumine, sonis, et motibus (quos vocant) violentis; aut quod flamma in natura sua possit hic apud nos manere, sed a contrariis naturis eireumfusis vim patiatur et destruatur.

Itaque poterit esse eirea hoc subjectum *instantia crucis* talis. Videmus flammas in ineendiis majoribus, quam alte in sursum aseendant. Quanto enim basis flammæ est latior, tanto vertex sublimior: itaque videtur prineipium extinetionis fieri eirea latera, ubi ab aëre flamma comprimitur, et male habetur. At meditullia flammæ, quæ aër non eontingit, sed alia flamma undique eireumdat, eadem numero manent; neque extinguuntur, donee paulatim angustentur ab aëre per latera eircumfuso. Itaque omnis flamma pyramidalis est basi eirea fomitem largior,

vertice autem (inimicante aëre, nec suppeditante fomite) acutior. At fumus angustior circa basin ascendendo dilatatur, et fit tanquam pyramis inversa; quia scilicet aër fumum recipit, flammam (neque enim quispiam somniet aërem esse flammam accensam, cum sint corpora plane heterogenea) comprimit.

Accuratior autem poterit esse *instantia crucis* ad hanc rem accommodata, si res forte manifestari possit per flammas bicolores. Capiatur igitur situla parva ex metallo, et in ea figatur parva candela cerea accensa; ponatur situla in patera, et circumfundatur spiritus vini in modica quantitate, quæ ad labra situlæ non attingat; tum accende spiritum vini. At spiritus ille vini exhibebit flammam magis scilicet cœruleam, lychnus candelæ autem magis flavam. Notetur itaque utrum flamma lychni (quam facile est per colorem a flamma spiritus vini distinguere; neque enim flammæ, ut liquores, statim commiscentur) maneat pyramidalis, an potius magis tendat ad formam globosam, cum nihil inveniatur quod eam destruat aut comprimat. At hoc posterius si fiat, manere flammam eandem numero, quamdiu intra aliam flammam concludatur, nec vim inimicam aëris experiatur, pro certo ponendum est.

Atque de *instantiis crucis* hæc dicta sint. Longiores autem in iis tractandis ad hunc finem fuimus, ut homines paulatim discant et assuefiant, de natura judicare per *instantias crucis*, et experimenta lucifera, et non per rationes probabiles.

XXXVII.

Inter *prærogativas instantiarum* ponemus loco decimo quinto *instantias divortii*; quæ indicant separationes naturarum earum, quæ ut plurimum occurrunt. Differunt autem ab instantiis quæ subjunguntur *instantiis comitatus*; quia illæ indicant separationes naturæ alicujus ab aliquo concreto, cum quo illa familiariter consuescit; hæ vero separationes naturæ alicujus ab altera natura. Differunt etiam ab *instantiis crucis*; quia nihil determinant, sed monent tantum de separabilitate unius naturæ ab altera. Usus autem earum est ad prodendas falsas formas, et dissipandas leves contemplationes ex rebus obviis orientes; adeo ut veluti plumbum et pondera intellectui addant.

Exempli gratia: sint naturæ inquisitæ, quatuor naturæ illæ; quas *contubernales* vult esse Telesius, et tanquam ex eadem camera: viz. calidum, lucidum, tenue, mobile, sive promptum ad motum. At plurimæ inveniuntur *instantiæ divortii* inter ipsas. Aër enim tenuis est et habilis ad motum, non calidus aut lucidus: luna lucida, absque calore: aqua fervens, calida absque lumine: motus acus ferreæ super versorium, pernix et agilis; et tamen in corpore frigido, denso, opaco: et complura id genus.

Similiter, sint naturæ inquisitæ, natura corporea, et actio naturalis. Videtur enim non inveniri actio naturalis, nisi subsistens in aliquo corpore. Attamen possit fortasse esse circa hanc rem *instantia* nonnulla *divortii*. Ea est actio magnetica, per quam ferrum fertur ad magnetem, gravia ad globum terræ. Addi etiam possint aliæ nonnullæ operationes ad distans. Actio siquidem hujusmodi et in tempore fit, per momenta, non in puncto temporis; et in loco, per gradus et spatia. Est itaque aliquod momentum temporis et aliquod intervallum loci, in quibus istu virtus sive actio hæret in medio inter duo illa corpora, quæ motum cient. Reducitur itaque contemplatio ad hoc; utrum illa corpora, quæ sunt termini motus, disponant vel altereut corpora media, ut per successionem et tactum verum labatur virtus a termino ad terminum, et interim subsistat in corpore medio; an horum nihil sit, præter corpora, et virtutem, et spatia? Atque in radiis opticis, et sonis, et calore, et aliis nonnullis operantibus ad distans, probabile est media corpora disponi et alterari; eo magis, quod requiratur medium qualificatum ad deferendam operationem talem. At magnetica illa sive coitiva virtus admittit media tanquam adiaphora, nec impeditur virtus in omnigeno medio. Quod si nil rei habeat virtus illa aut actio cum corpore medio, sequitur, quod sit virtus aut actio naturalis ad tempus nonnullum, et in loco nonnullo, subsisteus sine corpore; cum neque subsistat in corporibus terminantibus, nec in mediis. Quare actio magnetica poterit esse *instantia divortii*, circa naturam corpoream, et actionem naturalem. Cui hoc adjici potest tanquam corollarium aut lucrum non prætermittendum: vis. quod etiam secundum sensum philosophandi sumi possit probatio, quod sint entia, et substantiæ separatæ et incorporeæ. Si enim virtus et actio naturalis emanans a corpore, subsistere possit aliquo tempore et aliquo loco, omnino sine corpore; prope est, ut possit etiam emanare in origine sua a substantia incorporea. Videtur enim non minus requiri natura corporea ad actionem naturalem sustentandam et devehendam, quam ad excitandam aut generandam.

XXXVIII.

Sequuntur quinque ordines *instantiarum*, quas uno vocabulo generali *instantias lampadis*, sive *informationis primæ*, appellare consuevimus: eæ sunt, quæ auxiliantur sensui. Cum enim omnis *interpretatio naturæ* incipiat a sensu; atque a sensuum perceptionibus, recta, constanti, et munita via, ducat ad perceptionea intellectus, quæ sunt notiones veræ et axiomata; necesse est, ut quanto magis copiosæ et exactæ fuerint repræsentationes, sive præbitiones ipsius sensus, tanto omnia cedant facilius et felicius.

Harum autem quinque *instantiarum lampadis*; primæ roborant, ampliant, et rectificant actiones sensus immediatas; secundæ deducunt non-sensibile ad sensibile: tertiæ indicant processus continuatos sive series earum rerum et motuum, quæ (ut plurimum) non notantur nisi in exitu aut periodis: quartæ aliquid substituunt sensui in meris destitutionibus: quintæ excitant attentionem sensus et advertentiam, atque una limitant subtilitatem rerum. De his autem singulis jam dicendum est.

XXXIX.

Inter *prærogativas instantiarum* ponemus loco decimo sexto *instantias januæ* sive *portæ*: eo enim nomine eas appellamus, quæ juvant actiones sensus immediatas. Inter sensus autem manifestum est partes primas tenere visum, quoad informationem; quare huic sensui præcipue auxilia conquirenda.

Auxilia autem triplicia esse posse videntur: vel ut percipiat non visa; vel ut majore intervallo; vel ut exactius et distinctius.

Primi generis sunt (missis bis-oculis, et hujusmodi, quæ valent tantum ad eorrigendam et levandam infirmitatem visus non bene dispositi, atque ideo nihil amplius informant) ea, quæ nuper inventa sunt perspicilla; quæ latentes et invisibiles corporum minutias, et occultos schematismos, et motus (aucta insigniter speeierum magnitudine) demonstrant; quorum vi, in pulice, musca, vermiculis, accurata corporis figura et lineamenta, necnon colores et motus prius non conspicui, non sine admiratione eernuntur. Quinetiam aiunt lineam rectam calamo vel penicillo descriptam, per hujusmodi perspicilla inæqualem admodum et tortuosam cerni: quia scilicet nee motus manus licet per regulam adjutæ, nec impressio atramenti aut eoloris, revera æqualia existant; lieet illæ inæqualitates tam minutæ sint, ut sine adjumento hujusmodi perspieillorum eonspici nequeant. Etiam superstitiosam quandam observationem in hac re (ut fit in rebus novis et miris) addiderunt homines: viz. quod hujusmodi perspicilla opera naturæ illustrent, artis dehonestent. Illud vero nihil aliud est, quam quod texturæ naturales multo subtiliores sint quam artificiosæ. Perspieillum enim illud ad minuta tantum valet: quale perspicillum si vidisset Democritus, exsiluisset forte, et modum videndi atomum (quem ille invisibilem omnino affirmavit) inventum fuisse putasset. Verum incompetentia hujusmodi perspicillorum, præterquam ad minutias tantum, (neque ad ipsas quoque, si fuerint in eorpore majusculo,) usum rei destruit. Si enim inventum extendi posset at corpora majora, aut corporum majorum minutias; adeo ut textura panni lintei eonspici posset tamquam rete; atque hoc modo minutiæ latentes et inæqualitates gemmarum, liquorum, urinarum, sanguinis, vulnerum, et multarum aliarum rerum cerni possent; magnæ proculdubio ex eo invento commoditates capi possent.

Secundi generis sunt illa altera perspicilla, quæ memorabili eonatu adinvenit Galilæus: quorum ope, tanquam per scaphas aut naviculas, aperiri et exerceri possint propiora cum eœlestibus commercia. Hinc enim constat galaxiam esse nodum eive eoaeervationem stellarum parvarum, plane numerataram et distinctarum, de qua re apud antiquos tantum suspicio fuit. Hinc demonstrari videtur, quod spatia orbium (quos vocant) planetarum non sint plane vacua aliis stellis; sed quod eœlum incipiat stellescere, anteqnam ad eœlum ipsum stellatum ventum sit; lieet stellis minoribus, quam ut sine perspicillis istis eonspici possint. Hinc choreas illas stellarum parvarum eirca planetam Jovis (unde eonjici possit, esse in motibus stellarum plura eentra) intueri licet. Hinc inæqualitates luminosi et opaci in luna distinctius eernuntur et locantur; adeo ut fieri possit quædam seleno-graphia. Hinc maculæ in sole; et id genus: Omnia certe inventa nobilia, quatenus fides hujusmodi demonstrationibus tuto adhiberi possit. Quæ nobis ob hoc maxime suspectæ sunt, quod in istis paucis sistatur experimentum, neque alia complura investigatu æque digna eadem ratione inventa sint.

Tertii generis sunt baeilla illa ad terras mensurandas, astrolabia, et similia; quæ sensum videndi non ampliant, sed rectificant et dirigunt. Quod si sint aliæ instantiæ, quæ reliquos sensus juvent in ipsorum actionibus immediatis et individuis; tamen si ejusmodi sint, quæ informationi ipsi nihil addant plus quam jam habetur, ad id, quod nune agitur, non faciunt: itaque earum mentionem non fecimus.

XL.

Inter *prærogativas instantiarum* ponemus loco decimo septimo *instantias citantes*; sumpto vocabulo a foris civilibus, quia eitant ea ut compareant, quæ prius non eomparuerunt; quas etiam *instantias evocantes* appellare eonsuevimus. Eæ deducunt nonsensibile ad sensibile.

Sensum autem fugiunt res, vel propter distantiam objecti locati; vel propter interceptionem sensus per corpora media; vel quia objectum non est habile ad impressionem in sensu faciendam; vel qnia deficit quantum in objecto pro feriendo sensu; vel quia tempus non est proportionatum ad actuandum sensum; vel quia objecti percussio non toleratura sensu; vel quia objectum ante implevit et possedit sensum, ut novo motui non sit locus. Atque hæc præcipue ad visum pertinent, et deinde ad tactum. Nam hi duo sensus sunt informativi ad largum, atque de communibus objeetis; ubi reliqui tres non informent fere, nisi immediate et de propriis objectis.

In primo genere non fit deductio ad sensibile, nisi rei, quæ cerni non possit propter distantiam, adjiciatur aut substituatur alia res, qnæ sensum magis e longinquo provocare et ferire possit; velnti in significatione rerum per ignes, eampanas, et similia.

In secundo genere fit deduetio, eum ea, quæ interius propter interpositionem corporum latent, nee commode aperiri possunt, per ea, quæ sunt in superficie, aut ab interioribus efflunnt, perducuntur ad sensum: ut status humanorum corporum per pulsus et nrinas, et similia.

At tertii et quarti generis deductiones ad plurima spectant, atque nndique in rerum inquisitione sunt conquirendæ. Hujus rei exempla sunt. Patet quod aër, et spiritus, et hujusmodi res, quæ sunt toto corpore tenues et subtiles, nec eerui nec tangi possint: Quare in inquisitione eirea hujnsmodi eorpora dednctionibus omnino est opus.

Sit itaque natnra inquisita, aetio et motus spiritus, qui incinditur in corporibus tangibilibus. Omne enim tangibile apud nos eontinet spiritum invisibilem et intactilem, eique obdueitur, atque eum quasi vestit. Hine fons triplex potens ille, et mirabilis *processus* spiritus in corpore tangibili. Spiritus enim in re tangibili, emissus corpora contrahit et desiccat: detentus, corpora intenerat et colliquat; nec prorsus emissus nec prorsus detentus, informat, membrificat, assimilat, egerit, organizat, et similia. Atqne hæe omnia deducuntur ad sensibile per effectus conspicuos.

Etenim in omni corpore tangibili inanimato, spiritus inclusus primo multiplicat se, et tanquam depascet partes tangibiles eas, quæ sunt maxime ad hoc faeiles et præparatæ; easque digerit, et eonficit, et vertit in spiritnm, et deinde una evolant. Atque

hæc confectio et multiplicatio spiritus deducitur ad sensum per diminutionem ponderis. In omni enim desiccatione aliquid defluit de quanto; neque id ipsum ex spiritu tantum præinexistente, sed ex corpore quod prius fuit tangibile, et noviter versum est: spiritus enim non ponderat. Egressus autem sive emissio spiritus deducitur ad sensibile in rubigine metallorum, et aliis putrefactionibus ejus generis, quæ sistunt se, anteqnam pervenerint ad rudimenta vitæ; nam illæ ad tertium genus *processus* pertinent. Etenim in corporibus magis compactis spiritus non invenit poros et meatus, per quos evolet: itaque cogitur partes ipsas tangibiles protrudere et ante se agere, ita ut illæ simul exeant; atque inde fit rubigo, et similia. At contractio partium tangibilium, postquam aliqnid de spiritu fuerit emissum (unde sequitur illa desiccatio) deducitur ad sensibile, tum per ipsam duritiem rei auctam, tum multo magis per scissuras, angustationes, corrugationes, et complicationes corporum, quæ inde sequuntur. Etenim partes ligni desiliunt et angustantur; pelles corrugantur: neque id solum, sed (si subita fuerit emissio spiritus per calorem ignis) tantum properant ad contractionem, ut se complicent et convolvant.

At contra, ubi spiritus detinetur, et tamen dilatatur et excitatur per calorem aut ejus analoga (id quod fit in corporibus magis solidis aut tenacibus) tum vero corpora emolliuntur, ut ferrum candens; fluunt, ut metalla; liquefiunt, ut gummi, cera, et simillia. Itaque contrariæ illæ operationes caloris (ut ex eo alia durescant, alia liquescant) facile reconciliantur; quia in illis, spiritus emittitur; in his, agitatur et detinetur: qnorum posterius est actio propria caloris et spiritus; prius, actio partium tangibilium tantum per occasionem spiritus emissi.

Ast ubi spiritus nec detinetur prorsus, nec prorsus emittitur; sed tantum inter claustra sua tentat et experitur, atque nacta est partes tangibiles obedientes et sequaces in promptu; ita ut quo spiritus agit, eæ simul sequantur: tum vero sequitur efformatio in corpus organicum, et membrificatio, et reliquæ actiones vitales, tam in vegetabilibus quam in animalibus. Atque hæc maxime deducuntur ad sensum, per notationes diligentes primorum inceptuum, et rudimentorum sive tentamentorum vitæ in animaleulis ex putrefactione natis; ut in ovis formicarum, vermibus, muscis, ranis post imbrem, etc. Requiritur autem ad vivificationem, et lenitas caloris, et lentor corporis; ut spiritus nec per festinationem erumpat, nec per contumaciam partium coërceatur, quin potius ad ceræ modum illas plicare et effingere possit.

Rursus, differentia illa spiritus maxime nobilis, et ad plurima pertinens (viz. spiritus abscissi; ramosi simplicitcr; ramosi simul et cellulati: ex quibus prior est spiritus omnium corporum inanimatorum; secundus, vegetabilium; tertius, animalium) per plurimas instantias deductorias tanquam sub oculos ponitur.

Similiter patet, quod subtiliores texturæ et schematismi rerum (licet toto corpore visibilium aut tangibilium) nec cernantur, nec tangantur. Quare in his quoque per deductionem procedit informatio. At differentia schematismorum maxime radicalis et primaria sumitur ex copia vel paucitate materiæ, quæ subit idem spatium sive dimensum. Reliqui enim schematismi (qui referuntur ad dissimilaritates partium, quæ in eodem corpore continentur, et collocationes ac posituras earundem) præ illo altero sunt secundarii.

Sit itaque natura inquisita, expansio sive coitio materiæ in corporibus respective: viz. quantum materiæ impleat quantum dimensum in singulis. Etenim nil verius in natura, quam propositio illa gemella; *Ex nihilo nihil fieri: neque quicquam in nihilum redigi:* verum quantum ipsum materiæ sive summam totalem constare, nec augeri aut minui. Nec illud minus verum; *Ex quanto illo materiæ sub iisdem spatiis sive dimensionibus, pro diversitate corporum, plus et minus contineri;* ut in aqua plus, in aëre minus: Adeo ut si quis asserat, aliquod contentum aqnæ in par contentum aëris verti posse, idem sit ac si dicat, aliquid posse redigi in nihilum: contra, si quis asserat, aliquod contentum aëris in par contentum aquæ verti posse; idem sit ac si dicat, aliquid posse fieri ex nihilo. Atque ex copia ista et paucitate materiæ, notiones illæ *densi* et *rari*, quæ varie et promiscue accipiuntur, proprie abstrahuntur. Assumenda est et assertio illa tertia, etiam satis certa: quod hoc, de quo loquimur, plus et minus materiæ in corpore hoc vel illo, ad calculos (facta collatione) et proportiones exactas, aut exactis propinquas, reduci possit. Veluti si quia dicat inesse in dato contento auri talem conservationem materiæ, ut opus habeat spiritus vini ad tale quantum materiæ æquandum, spatio vicies et semel majore, quam implet aurum; non erraverit.

Concervatio autem materiæ, et rationes ejus deducuntur ad sensibile per pondus. Pondus enim respondet copiæ materiæ, quoad partes rei tangibilis: spiritus autem, et ejus quantum ex materia, non venit in computationem per pondus; levat enim pondus potius, quam gravat. At nos hujus rei tabulam fecimus satis accuratam; in qua pondera et spatia singulorum metallorum, lapidum præcipuorum, lignorum, liquorum, oleorum, et plurimorum aliorum corporum tam naturalium quam artificialium, excepimus: rem polychrestam, tam ad lucem informationis, quam ad normam operationis; et quæ multas res revelet omnino præter expectatum. Neque illud pro minimo habendem est, quod demonstret omnem varietatem, quæ in corporibus tangibilibus nobis notis versatur (intelligimus autem corpora bene unita, nec plane spongiosa, et cava, et magna ex parte aëre impleta) non ultra rationes partium viginti et unius exeedere: tam finita scilicet est natura, aut saltem illa pars ejus, cujus usus ad nos maxime pertinet.

Etiam diligentiæ nostræ esse putavimus experiri, si forte capi possint rationes corporum non tangibilium sive pneumaticorum, respectu corporum tangibilium. Id quod tali molitione aggressi sumus. Phialam vitream accepimus, quæ unciam fortasse unam capere possit; parvitate vasis usi, ut minori cum calore posset fieri evaporatio sequens. Hanc phialam spiritu vini implevimus fere ad collum; eligentes spiritum vini, quod per tabulam priorem, eum esse ex corporibus tangibilibus (quæ bene unita,

nec cava sunt) rarissimum, et minimum continens materiæ sub suo dimenso, observavimus. Deinde pondus aquæ cum phiala ipsa exacte notavimus. Postea vesicam accepimus, quæ circa duas pintas contineret. Ex ea aërem omnem, quoad fieri potuit, expressimus, eo usque ut vesicæ ambo latera essent contigua: etiam prius vesicam oleo oblevimus cum fricatione leni, quo vesica esset clausior; ejus, siqua erat, porositate oleo obturata. Hanc vesicam circa os phialæ, ore phialæ intra os vesicæ recepto, fortiter ligavimus; filo parum cerato, ut melius adhæresceret et arctius ligaret. Tum demum phialam supra carbones ardentes in foculo collocavimus. At paulo post vapor sive aura spiritus vini per calorem dilatati, et in pneumaticum versi, vesicam paulatim sufflavit, eamque universam veli instar undequaque extendit. Id postquam factum fuit, continuo vitrum ab igne removimus, et super tapetem posuimus, ne frigore disrumperetur: statim quoque in summitate vesicæ foramen fecimus, ne vapor, cessante calore, in liquorem restitutus resideret, et rationes confunderet. Tum vero vesicam ipsam sustulimus, et rursus pondus excepimus spiritus vini, qui remanebat. Inde quantum consumptum fuisset in vaporem seu pneumaticum, computavimus; et facta collatione, quantum locum sive spatium illud corpus implesset, quando esset spiritus vini in phiala, et rursus quantum spatium impleverit, postquam factum fuisset pneumaticum in vesica, rationes subduximus: ex quibus manifeste liquebat, corpus istud ita versum et mutatum expansionem centuplo majorem, quam antea habuisset, acquisivisse.

Similiter, sit natura inquisita, calor aut frigus; ejus nempe gradus, ut a sensu non percipiantur ob debilitatem. Hæc deducuntur ad sensum per vitrum calendare, quale superius descripsimus. Calor enim et frigus, ipsa non percipiuntur ad tactum: at calor aërem expandit, frigus contrahit. Neque rursus illa expansio et contractio aëris percipitur ad visum: at aër ille expansus aquam deprimit; contractus, attollit; ac tum demum fit deductio ad visum, non ante, aut alias.

Similiter, sit natura inquisita, mistura corporum; viz. quid habeant ex aqueo, quid ex oleoso, quid ex spiritu, quid ex cinere, et salibus, et hujusmodi; vel etiam (in particulari) quid habeat lac butyri, quid coaguli, quid seri, et hujusmodi. Hæc deducuntur ad sensum per artificiosas et peritas separationes, quatenus ad tangibilia. At natura spiritus in ipsis, licet immediate non percipiatur, tamen deprehenditur per varios motus et nixus corporum tangibilium, in ipso actu et processu separationis suæ; atque etiam per acrimonias, corrosiones, et diversos colores, odores, et sapores eorundem corporum post separationem. Atque in hac parte, per distillationes atque artificiosas separationes, strenue sane ab hominibus elaboratum est; sed non multo felicius quam in cæteris experimentis, quæ adhuc in usu sunt; modis nimirum prorsus palpatoriis, et viis cæcis, et magis operose quam intelligenter; et (quod pessimum est) nulla cum imitatione aut æmulatione naturæ, sed cum destructione (per calores vehementes, aut virtutes nimis validas) omnis subtilioris schematismi, in quo occultæ rerum virtutes et consensus præcipuc sitæ sunt. Neque illud etiam, quod alias monuimus, hominibus in mentem aut observationem venire solet in hujusmodi separationibus; hoc est, plurimas qualitates in corporum vexationibus, tam per ignem quam alios modos, indi ab ipso igne, iisque corporibus, quæ ad separationem adhibentur, quæ in composito prius non fuerunt; unde miræ fallaciæ. Neque enim scilicet vapor universus, qui ex aqua emittitur per ignem, vapor aut aër antea fuit in corpore aquæ; sed factus est maxima ex parte per dilatationem aquæ ex calore ignis.

Similiter in genere omnes exquisitæ probationes corporum, sive naturalium sive artificialium, per quas vera dignoscuntur ab adulterinis, meliora a viliori bus, huc referri debent: deducunt enim non-sensibile ad sensibile. Sunt itaque diligenti cura undique conquirendæ.

Quintum vero genus latitantiæ quod attinet; manifestum est actionem sensus transigi in motu, motum in tempore. Si igitur motus alicujus corporis sit vel tam tardus, vel tam velox, ut non sit proportionatus ad momenta, in quibus transigitur actio sensus; objectum omnino non percipitur: ut in motu indicis horologii, et rursus in motu pilæ sclopeti. Atque motus, qui ob tarditatem non percipitur, facile et ordinario deducitur ad sensum per summas motus; qui vero ob velocitatem, adhuc non bene mensurari consuevit; sed tamen postulat inquisitio naturæ, ut hoc fiat in aliquibus.

Sextum autem genus, ubi impeditur sensus propter nobilitatem objecti, recipit deductionem; vel per elongationem majorem objecti a sensu; vel per hebetationem objecti per interpositionem medii talis, quod objectum debilitet, non annihilet; vel per admissionem et exceptionem objecti reflexi, ubi percussio directa sit nimis fortis; ut solis in pelvi aquæ.

Septimum autem genus latitantiæ, ubi sensus ita oneratur objecto, ut novæ admissioni non sit locus, non habet fere locum nisi in olfactu et odoribus; nec ad id, quod agitur, multum pertinet. Quare de deductionibus non sensibilis ad sensibile hæc dicta sint.

Quandoque tamen deductio fit non ad sensum hominis, sed ad sensum alicujus alterius animalis, cujus sensus in aliquibus humanum excellit; ut nonnullorum odorum, ad sensum canis; lucis, quæ in aëre non extrinsecus illuminato latenter existit, ad sensum felis, noctuæ, et hujusmodi animalium, quæ cernunt noctu. Recte enim notavit Telesius, etiam in aëre ipso inesse lucem quandam originalem, licet exilem et tenuem, et maxima ex parte oculis hominum aut plurimorum animalium non inservientem; quia illa animalia, ad quorum sensum hujusmodi lux est proportionata, cernant noctu; id quod vel sine luce fieri, vel per lucem internam, minus credibile est.

Atque illud utique notandum est; de destitutionibus sensuum, corumque remediis, hic nos tractare.

Nam fallaciæ sensuum ad proprias inquisitiones de sensu et sensibili remittendæ sunt; excepta illa magna fallacia sensuum, nimirum quod constituant lineas rerum ex analogia hominis, et non ex analogia universi; quæ non corrigitur, nisi per rationem et philosophiam universalem.

XLI.

Inter *prærogativas instantiarum* ponemus loco decimo octavo *instantias viæ*; quas etiam *instantias itinerantes* et *instantias articulatas*, nppellare consuevimus. Eæ sunt, quæ indicant naturæ motus gradatim continuatos. Hoc autem genus instantiarum potius fugit observationem, quam sensum. Mira enim est hominum circa hanc rem indiligentia. Contemplantur siqnidem naturam tantummodo desultorie et per periodos, et postquam corpora fuerint absolnta ae completa, et non in operatione sua. Quod si artificis alicujus ingenia et industriam explorare et contemplari quis cuperet, is non tantum materias rudes artis, atque deinde opera perfecta, conspicere desideraret; sed potius præsens esse, cum artifex operatur, et opus suum promovet. Atque simile quiddam circa naturam faciendum est. Exempli gratia; si quis de vegetatione plantarum inquirat, ei inspiciendum est ab ipsa satione seminis alicujus (id quod per extractionem, quasi singulis diebus, seminum, quæ per bidnum, triduum, quatridnum, et sic deinceps in terra manserunt, eorumque diligentem intuitum, facile fieri potest) quomodo et quando semen intumescere et turgere incipiat, et veluti spiritu impleri; deinde quomodo corticulam rumpere, et emittere fibras, cum latione nonnulla sui interim sursum, nisi terra fuerit admodum contumax; quomodo etiam emittat fibras, partim radicalea deorsum, partim cauliculares sursum, aliquando serpendo per latera, si ex en parte inveniat terram apertam et magis facilem, et complura id genus. Similiter facere oportet circa exclusionem ovorum, ubi facile conspici dabitur processns vivificandi et organizandi, et quid, et quæ partes fiant ex vitello, quid ex albumine ovi, et nlia. Similis est ratio circa animalia ex putrefactione: nam circn animalia perfecta et terrestria, per exsectiones fœtuum ex utero, minus humanum esset ista inquirere; nisi forte per occasiones abortuum, et venationum, et similium. Omnino igitur vigilia quædam servanda est circa naturam, ut quæ melius se conspiciendam præbeat noctu, quam interdiu. Istæ enim contemplationes tanqunm nocturnæ censeri possint, ob lucernæ parvitatem et perpetuationem.

Quin et in innnimatis idem tentandum est: id quod nos fecimus in inquirendis aperturis liquorum per ignem. Alius enim est modus aperturæ in aqua, alius in vino, alius in aceto, alius in omphacio; longe alius in lacte, et oleo, et cæteris. Id qnod facile cernere erat per ebullitionem super ignem lenem, et in vase vitreo, ubi omnia eerni perspicue possint. Verum hæc brevius perstringimus; fusius et exactius de iis sermones hnbituri, eum ad inventionem *latentes* rerum *processus* ventum erit: semper enim memoria tenendum est, nos hoc loco non res ipsas tractare, sed exempla tantum adducere.

XLII.

Inter *prærogativas instantiarum* ponemus loco decimo nono *instantias supplementi*, sive *substitutionis*; qnas etiam *instantias perfugii* appellare consuevimus. Eæ sunt, quæ snpplent informationem, ubi sensus plane destituitur; atque idcirco ad eas confugimus, cum instantiæ propriæ haberi non possint. Duplicitur autem fit substitutio; aut per graduationem, aut per analoga. Exempli gratia: non invenitur medium, quod inhibeat prorsus operationem magnetus in movendo ferrum; non aurum interpositum, non argentum, non lapis, non vitrum, lignum, aqua, oleum, pannus aut corpora fibrosa, aër, flamma, et cætera. Attamen per probationem exactam fortasse inveniri possit aliquod medium, quod hebetet virtntem ipsius plus quam aliquod alind, comparative et in aliquo gradu; veluti quod non trahat magnes ferrum per tantum crassitiem auri, quam per par spatium aëris: aut per tantum argentum ignitum, quam per frigidum, et sic de similibus. Nam de his nos experimentum non fecimus: sed sufficit tamen, ut proponatur loco exempli. Similiter non invenitur hic apud nos corpus, quod non suscipiat calidum igni approximatum. Attamen longe citius suscipit calorem aër, quam lapis. Atque talis est substitutio, quæ fit per gradus.

Substitutio autem per analogia, utilis sane, sed minus certa est; atque idcireo cum judicio quodam adhibenda. Ea fit, cum deducitur non-sensibile ad sensum; non per operationes sensibiles ipsius corporis insensibilis, sed per contemplationem corporis alicujus cognati sensibilis. Exempli gratia: si inquiratur de mistura spirituum, qui sunt corpora nonvisibilia; videtur esse cognatio quædam inter corpora, et formites sive alimenta sua. Fomes autem flammæ videtur esse oleum et pinguin; aëris, aqua et aquea: flammæ enim multiplicant se super halitus olei, aër super vapores aquæ. Videndum itaque de mistura aquæ et olei, quæ se manifestat ad sensum: quandoquidem mistura aëris et flammei gencris fugiat sensum. At oleum et aqun inter se per compositionem ant agitationem imperfecte admodum miscentur, endem in herbis, et sanguine, et partibus animalium, accurate et delicnte miscentur. Itaque simile quiddam fieri possit circa misturam flammei et aërei generis in spiritalibus: quæ per confusionem simplicem non bene sustinent misturam: eadem tamen in spiritibus plantarnm et animalium misceri videntur; præsertim cum omnis spiritus animatus depascnt humida utraque, aquen et pinguia, tanquam fomites suos.

Similiter, si non de perfectioribus misturia spiritalium, sed de compositione tnntum inquirutur; nempe utrum facile inter se incorporentur; an potius (exempli gratia) sint aliqui venti et exhalationes, ant alia corpora spiritalia, quæ non miscentur cum aëre communi, sed tantum hærent et natant in eo, in globulis et guttis, et potius franguntur ac comminuuntur ab aëre, quam in ipsum recipiuntnr et incorporantur. Hoc in aëre communi et aliis spiritalibus, ob subtilitatem corporum, percipi ad sensum non potest; attamen imago quædam hujus rei, quatenus fiat, concipi possit in liquoribus argenti vivi, olei, aquæ; atque etiam in aëre et fractione ejus, qnando dissipatur et ascendit in parvia portiunculis per aquam; atque etiam in fumis crassioribus, denique in pulvere excitato et hærente in aëre; in quibus omnibus non fit incorporatio. Atque repræsentatio prædicta in hoc subjecto non mala est, si illud primo diligenter inquisitum fuerit, utrum possit

esse talis heterogenea inter spiritalia, qualis invenitur inter liquida: nam tum demum hæc simulaera per analogiam non incommode substituentur.

Atque de *instantiis* istis *supplementi*, quod diximus, informationem ab iis hauriendam esse, quando desint instantiæ propriæ, loco *perfugii*, nihilominus intelligi volumus, quod illæ etiam magni sint usus, etiam cum propriæ instantiæ adsint; ad roborandam scilicet informationem una cum propriis. Verum de his exactius dicemus, quando ad *adminicula inductionis* tractanda sermo ordine dilabetur.

XLIII.

Inter *prærogativas instantiarum* ponemus loco vicesimo *instantias persecantes*; quas etiam *instantias vellicantes* appellare consuevimus, sed diversa ratione. *Vellicantes* enim eas appellamus, quia vellicant intellectum; *persecantes*, quia persecant naturam: unde etiam illas quandoque *instantias Democriti* nominamus. Eæ sunt, quæ de admirabili et exquisita subtilitate naturæ intellectum submonent, ut excitetur et expergiscatur ad attentionem, et observationem, et inquisitionem debitam. Exempli gratia: quod parum guttulæ atramenti ad tot literas vel lineas extendatur; quod argentum, exterius tantum inauratum, ad tantum longitudinem fili inaurati continuetur; quod pusillus vermiculus, qualis in cute invenitur, habeat in se spiritum simul et figuram dissimilarem partium; quod parum eroci, etiam dolium aquæ colore infleiat; quod parum zibethi aut aromatis, longe majus contentum aëris odore; quod exiguo suffitu tanta excitetur nubes fumi; quod sonorum tam accuratæ differentiæ, quales sint voces articulatæ, per aërem undequaque vehantur, atque per foramina et poros etiam ligni et aquæ (licet admodum extenuatæ) penetrent, quin etiam repercutiantur, idque tam distincte et velociter; quod lux et color, etiam tanto ambitu et tam perniciter, per corpora solida vitri, aquæ, et cum tanta et tam exquisita varietate imaginum permeent, etiam refringantur et reflectantur; quod magnes per corpora omnigena, etiam maxime compacta, operetur: sed (quod magis mirum est) quod in his omnibus, in medio adiaphoro (quale est aër) unius actio aliam non magnopere impediat; nempe, quod eodem tempore per spatia aëris devehantur et visibilium tot imagines; et vocis articulatæ tot percussiones; et tot odores specificati, ut violæ, rosæ; etiam calor et frigus; et virtutes magneticæ; omnia (inquam) simul, uno alterum non impediente; ac si singula haberent vias et meatus suos proprios separatos, neque unum in alterum impingeret aut incurreret.

Solemus tamen utiliter hujusmodi *instantiis persecantibus* subjungere instantias, quas *metas persecationis* appellare consuevimus: veluti, quod in iis, quæ diximus, una actio in diverso genere aliam non perturbet aut impediat; cum tamen in eodem genere una aliam domet et extinguat: veluti, lux solis, lucem cicindelæ; sonitus bombardæ, vocem; fortior odor, delicatiorem; intensior calor, remissiorem; lamina ferri interposita inter magnetem et aliud ferrum, operationem magnetis. Verum de his quoque inter *adminicula inductionis* erit propriius dicendi locus.

XLIV.

Atque de instantiis, quæ juvant sensum, jam dictum est; quæ præcipui usus sunt ad partem informativam. Informatio enim incipit a sensu. At universum negotium desinit in opera: atque quemadmodum illud principium, ita hoc finis rei est. Sequentur itaque instantiæ præcipui usus ad *partem operativam*. Eæ genere duæ sunt, numero septem: quas universas, generali nomine, *instantias praeticas* appellare consuevimus. *Operativæ* autem *partis* vitia duo, totidemque dignitates instantiarum in genere. Aut enim fallit operatio, aut onerat nimis. Fallit operatio maxime (præsertim post diligentem naturarum inquisitionem) propter male determinatas et mensuratas corporum vires et actiones. Vires autem et actiones corporum circumscribuntur et mensurantur, aut per spatia loci, aut per momenta temporis, aut per unionem quanti, aut per prædominantiam virtutis: quæ quatuor, nisi fuerint probe et diligenter pensitata, erunt fortasse scientiæ speculatione quidem pulchræ, sed opere inactivæ. Instantias vero quatuor itidem, quæ huc referuntur, uno nomine *instantias mathematicas* vocamus, et *instantias mensuræ*.

Onerosa autem fit praxis, vel propter misturam rerum inutilium; vel propter multiplicationem instrumentorum; vel propter molem materiæ et corporum, quæ ad aliquod opus requiri contigerint. Itaque eæ instantiæ in pretio esse debent, quæ aut dirigunt operativam ad ea quæ maxime hominum intersunt; aut quæ parcunt instrumentis; aut quæ parcunt materiæ sive supellectili. Eas autem tres instantias, quæ huc pertinent, uno nomine *instantias propitias* sive *benevolas* vocamus. Itaque de his septem instantiis jam sigillatim dicemus. atque cum iis partem illam de prærogativis sive dignitatibus instantiarum claudemus.

XLV.

Inter *prærogativas instantiarum* ponemus loco vicesimo primo *instantias virgæ*, sive *radii*; quas etiam *instantias perlationis*, vel de *non ultra* appellare consuevimus. Virtutes enim rerum et motus operantur, et expediuntur per spatia, non indefinita aut fortuita, sed finita et certa; quæ ut in singulis naturis inquisitis teneantur et notentur, plurimum interest practicæ; non solum ad hoc, ut non fallat, sed etiam ut magis sit aucta et potens. Etenim interdum datur virtutes producere, et distantias tanquam retrahere in propius; ut in perspicillis.

Atque plurimæ virtutes operantur et effiiunt tantum per tactum manifestum; ut fit in percussione corporum, ubi alterum non summovet alterum, nisi impellens impulsum tangat. Etiam medicinæ, quæ exterius applicantur, ut unguenta, emplastra, non exercent vires suas, nisi per tactum corporis. Denique objecta sensuum, tactus et gustus, non feriunt, nisi contigua organis.

Sunt et aliæ virtutes, quæ operantur ad distantiam, verum valde exiguam, quarum paucæ adhuc notatæ sunt, cum tamen plures sint quam homines suspicentur: ut (capiendo exempla ex vulgatis) cum succinum aut gagates trahunt paleas; bullæ approxima-

tæ solvunt bullas; medicinæ nonnullæ purgativæ eliciunt humores ex alto, et hujusmodi. At virtus illa magnetica, per quam ferrum et magnea, vel magnetea invicem coëunt, operatur intra orbem virtutis certum, sed parvum; ubi contra, si sit aliqua virtus magnetica emanans ab ipsa terra (paulo nimirum interiore) super acum ferream, quatenus ad verticitatem, operatio fiat ad distantiam magnam.

Rursus, si sit aliqua vis magnetica, quæ operetur per consensum inter globum terræ et ponderosa, aut inter globum lunæ et aquas maris (quæ maxime credibilis videtur in fluxibus et refluxibus semi-menstruis) aut inter cœlum stellatum et planetas, per quam evocentur et attollantur ad sua apogæa; hæc omnia operantur ad distantias admodum longinquas. Inveniuntur et quædam inflammationes sive conceptiones flammæ, quæ fiunt ad distantias bene magnas in aliquibus materiis; ut referunt de naptha Babylonica. Calorea etiam insinuant se per distantias amplas; quod etiam faciunt frigora: adeo ut habitantibus circa Canadam moles sive massæ glaciales, quæ abrumpuntur et natant per oceanum septentrionalem, et deferuntur per Atlanticum versus illas oras, percipiantur et incutiant frigora e longinquo. Odores quoque (licet in his videatur semper esse quædam emissio corporea) operantur ad distantias notabiles; ut evenire solet navigantibus juxta littora Floridæ, aut etiam nonnulla Hispaniæ, ubi sunt sylvæ totæ ex arboribus limonum, aurantiorum, et hujusmodi plantarum odoratarum, aut frutices rorismarini, majoranæ, et similium. Postremo radiationes lucis, et impressiones sonorum, operantur scilicet ad distantias spatiosas.

Verum hæc omnia, utcunque operentur ad distantias parvas sive magnas, operantur certe ad finitas et naturæ notas, ut sit quiddam *non ultra*; idque pro rationibus, aut molia seu quanti corporum; aut vigoris et debilitatis virtutum; aut favoribus et impedimentis mediorum; quæ omnia in computationem venire et notari debent. Quinetiam mensuræ motuum violentorum (quos vocant) ut missilium, tormentorum, rotarum, et similium, cum hæ quoque manifesto suos habeant limites certos, notandæ sunt.

Inveniuntur etiam quidam motus et virtutes contrariæ illis, quæ operantur per tactum, et non ad distans; quæ operantur scilicet ad distans, et non ad tactum; et rursus, quæ operantur remissius ad distantiam minorem, et fortius ad distantiam majorem. Etenim visio non bene transigitur ad tactum, sed indiget medio et distantia. Licet meminerim, me audisse ex relatione cujusdam fide digni, quod ipse in curandis oculorum suorum cataractis (erat autem cura talis, ut immitteretur festuca quædam parva argentea intra primam oculi tunicam, quæ pelliculam illam cataractæ removeret et truderet in angulum oculi) clarissime vidisset festucam illam supra ipsam pupillam moventem. Quod utcunque verum esse possit, manifestum est, majora corpora non bene aut distincte cerni, nisi in cuspide coni, coëuntibus radiis objecti ad nonnullam distantiam. Quin etiam in senibus oculus melius cernit, remoto objecto paulo longius, quam propius. In missilibus autem certum est, percussionem non fieri tam furtem ad distantiam nimis parvam, quam paulo post. Hæc itaque et similia in mensuris motuum quoad distantias notanda sunt.

Est et aliud genus mensuræ localis motuum, quod non prætermittendum est. Illud vero pertinet ad motus non progressivos, sed sphæricos; hoc est, ad expansionem corporum in majorem sphæram, aut contractionem in minorem. Inquirendum enim est inter mensuras istas motuum, quantam compressionem aut extensionem corpora (pro natura ipsorum) facile et libenter patiantur, et ad quem terminum reluctari incipiant, adeo ut ad extremum *non ultra* ferant; ut cum vesica inflata comprimitur, sustinet illa compressionem nonnullam aëris; sed si major fuerit, non patitur aër, sed rumpitur vesica.

At nos hoc ipsum subtiliore experimento magis exacte probavimus. Accepimus enim campanulam ex metallo, leviorem scilicet et tenuiorem, quali ad excipiendum salem utimur; eamque in pelvim aquæ immisimus, ita ut deportaret secum aërem, qui continebatur in concavo, usque ad fundum pelvis. Locaveramus autem prius globulum in fundo pelvis, super quem campanula imponenda esset. Quare illud eveniebat, ut si globulus ille esset minusculus (pro ratione concavi) reciperet se aër in locum minorem, et contruderetur solum, non extruderetur. Quod si grandioris esset magnitudinis, quam ut aër libenter cederet, tum aër, majoris pressuræ impatiens, campanulam ex aliqua parte elevabat, et in bullis ascendebat.

Etiam ad probandum qualem extensionem (non minus quam compressionem) pateretur aër, tale quippiam practicavimus. Ovum vitreum accepimus, cum parvo foramine in uno extremo ovi. Aërem per foramen exsuctione forti attraximus, et statim digito foramen illud obturavimus; et ovum in aquam immersimus, et dein digitum removimus. Aër vero, tensura illa per exsuctionem facta tortus, et magis quam pro natura sua dilatatus, ideoque se recipere et contrahere nitens (ita ut si ovum illud in aquam non fuisset immersum, aërem ipsum traxisset cum sibilo) aquam traxit ad tale quantum, quale sufficere possit ad hoc, ut aër antiquam recuperaret sphæram sive dimensionem.

Atque certum est, corpora tenuiora (quale est aër) pati contractionem nonnullam notabilem, ut dictum est: at corpora tangibilia (quale est aqua) multo ægrius, et ad minus spatium patiuntur compressionem: qualem autem patiatur, tali experimento inquisivimus.

Fieri fecimus globum ex plumbo cavum, qui duas circiter pintas vinarias contineret; eumque satis per latera crassum, ut majorem vim sustineret. In illum aquam immisimus, per foramen alicubi factum, atque foramen illud, postquam globus aqua impletus fuisset, plumbo liquefacto obturavimus, ut globus deveniret plane consolidatus. Dein globum forti malleo ad duo latera adversa complanavimus: ex quo necesse fuit aquam in minus contrahi, cum sphæra figurarum sit capaciasima. Deinde, cum malleatio non amplius sufficeret, ægrius se recipiente aqua, molendino seu torculari usi sumus; ut tandem aqua, impatiens pressuræ ulterioris, per solida plumbi (instar roris delicati) exstillaret. Postea, quantum spatii per eam compressionem imminutum

foret, computavimus: atque tantam compressionem passam esse aquam (sed violentia magna subactam) intelleximus.

At solidiora, sicca, aut magis compacta, qualia sunt lapides et ligna, necnon metalla, multo adhuc minorem compressionem aut extensionem, et fere imperceptibilem ferunt; sed vel fractione, vel progressione, vel aliis pertentationibus se liberant, ut in curvationibus ligni aut metalli, horologiis moventibus per complicationem laminæ, missilibus, malleationibus, et innumeris aliis motibus, apparet. Atque hæc omnia cum mensuris suis in indagatione naturæ notanda et exploranda sunt; aut in certitudine sua, aut per æstimativas, aut per comparativas, prout dabitur copia.

XLVI.

Inter *prærogativas instantiarum* ponemus loco vicesimo secundo *instantias curriculi*, quas etiam *instantias ad aquam* appellare consuevimus; sumpto vocabulo a clepsydris apud antiquos, in quas infundebatur aqua loco arenæ. Eæ mensurant naturam per momenta temporis, quemadmodum *instantiæ virgæ* per gradus spatii. Omnis enim motus sive actio naturalis transigitur in tempore; alius velocius, alius tardius, sed utcunque momentis certis, et naturæ notis. Etiam illæ actiones, quæ subito videntur operari, et in ictu oculi (ut loquimur) deprehenduntur recipere majus et minus quoad tempus.

Primo itaque videmus, restitutiones corporum cœlestium fieri per tempora numerata; etiam fluxus et refluxus maris. Latio autem gravium versus terram, et levium versus ambitum cœli, fit per certa momenta, pro ratione corporis quod fertur, et medii. At velificationes navium, motus animalium, perlationes missilium, omnes fiunt itidem per tempora (quantum ad summas) numerabilia. Calorem vero quod attinet, videmus pueros per hiemem manus in flamma lavare, nec tamen uri; et joculatores vasa plena vino vel aqua, per motus agiles et æquales vertere deorsum, et sursum recuperare, non effuso liquore; et multa hujusmodi. Nec minus ipsæ compressiones, et dilatationes, et eruptiones corporum fiunt, aliæ velocius, aliæ tardius, pro natura corporis et motus, sed per momenta certa. Quinetiam in explosione plurium bombardarum simul, quæ exaudiuntur quandoque ad distantiam triginta milliarium, pereipitur sonus prius ab iis, qui prope absunt a loco ubi fit sonitus, quam ab iis, qui longe. At in visu (cujus actio est pernicissima) liquet etiam requiri ad eum actuandum momenta certa temporis; idque probatur ex iis, quæ propter motus velocitatem non cernuntur; ut ex latione pilæ ex sclopeto. Velocior enim est prætervolatio pilæ quam impressio speciei ejus, quæ deferri poterat ad visum.

Atque hoc, cum similibus, nobis quandoque dubitationem peperit plane monstrosam; videlicet, utrum cœli sereni et stellati facies ad idem tempus cernatur, quando vere existit, an potius aliquanto post; et utrum non sit (quatenus ad visum cœlestium) non minus tempus verum, et tempus visum, quam locus verus et locus visus, qui notatur ab astronomis in parallaxibus. Adeo incredibile nobis videbatur, species sive radios corporum cœlestium per tam immensa spatia milliarium subito deferri posse ad visum; sed potius debere eas in tempore aliquo notabili delabi. Verum illa dubitatio (quoad majus aliquod intervallum temporis inter tempus verum et visum) postea plane evanuit; reputantibus nobis jacturam illam infinitam, et diminutionem quanti, quatenus ad apparentiam inter corpus stellæ verum, et speciem visam, quæ causatur a distantia; atque simul notantibus ad quantam distantiam (sexaginta scilicet ad minimum milliariorum) corpora, eaque tantum albicantia, subito hic apud nos cernantur; cum dubium non sit lucem cœlestium, non tantum albedinis vividum calorem, verum etiam omnis flammæ (quæ apud nos nota est) lucem, quoad vigorem radiationis, multis partibus excedere; etiam immensa illa velocitas in ipso corpore, quæ cernitur in motu diurno (quæ etiam viros graves ita obstupefecit, ut mallent credere motum terræ) facit motum illum ejaculationis radiorum ab ipsis (licet celeritate, ut diximus, mirabilem) magis credibilem. Maxime vero omnium nos movit, quod si interponeretur intervallum temporis aliquod notabile inter veritatem et visum, foret ut species per nubes interim orientes, et similes medii perturbationes, interciperentur sæpenumero, et confunderentur. Atque de mensuris temporum simplicibus hæc dicta sint.

Verum non solum quærenda est mensura motuum et actionum simpliciter, sed multo magis comparative: id enim eximii est usus, et ad plurima spectat. Atque videmus flammam alicujus tormenti ignei citius cerni, quam sonitus audiatur; licet necesse sit pilam prius aërem percutere, quam flamma, quæ ponc erat, exire potuerit; fieri hoc autem propter velociorem transactionem motus lucis, quam soni. Videmus etiam species visibiles a visu citius excipi, quam dimitti; unde fit, quod nervi fidium, digito impulsi, duplicentur aut triplicentur quoad speciem, quia species nova recipitur, antequam prior dimittatur; ex quo etiam fit, ut annuli rotati videantur globosi, et fax ardens, noctu velociter portata, conspiciatur caudata. Etiam ex hoc fundamento inæqualitatis motuum quoad velocitatem, excogitavit Galilæus causam fluxus et refluxus maris, rotante terræ velocius, aquis tardius; ideoque accumulantibus se aquis in sursum, et deinde per vices se remittentibus in deorsum; ut demonstratur in vase aquæ incitatius movente. Sed hoc commentus est concesso non concessibili (quod terra nempe moveatur) ac etiam non bene informatus de oceani motu sexhorario.

At exemplum hujus rei, de qua agitur, videlicet de comparativis mensuris motuum, neque solum rei ipsius, sed et usus insignis ejus (de quo paulo ante loquuti sumus) eminet in cuniculis subterraneis, in quibus collocatur pulvis pyrius; ubi immensæ moles terræ, ædificiorum, et similium, subvertuntur, et in altum jaciuntur, a pusilla quantitate pulveris pyrii. Cujus causa pro certo illa est, quod motus dilatationis pulveris qui impellit, multis partibus sit pernicior, quam motus gravitatis, per quem fieri possit aliqua resistentia; adeo ut primus motus perfunctus sit, antequam motus adversus inceperit; ut in principiis nullitas quædam sit resistentiæ. Hinc etiam fit, quod in omni missili actus non tam robustus, quam acutus, et celer, ad perlationem potissimum valeat.

Neque etiam fieri potuisset, ut parva quantitas spiritus animalis in animalibus, præsertim in tam vastis corporibus, qualia sunt balænæ aut elephanti, tantam molem corpoream flecteret et regeret; nisi propter velocitatem motus spiritus, et hebetudinem corporeæ molis, quatenus ad expediendam suam resistentiam.

Denique, hoc unum ex præcipuis fundamentis est experimentorum magicorum, de quibus mox dicemus; ubi scilicet parva moles materiæ longe majorem superat, et in ordinem redigit: hoc inquam; si fieri possit anteversio motuum per velocitatem unius, antequam alter se expediat.

Postremo, hoc ipsum *prius* et *posterius* in omni actione naturali notari debet; veluti quod in infusione rhabarbari eliciatur purgativa vis prius, astrictiva post; simile quiddam etiam in infusione violarum in acetum experti sumus; ubi primo excipitur suavis et delicatus floris odor; post, pars floris magis terrea, quæ odorem confundit. Itaque si infundantur violæ per diem integrum, odor multo languidius excipitur; quod si infundantur per partem quartam horæ tantum, et extrahantur, et (quia paucus est spiritus odoratus, qui subsistit in viola) infundantur post singulas quartas horæ violæ novæ et recentes ad sexies; tum demum nobilitatur infusio, ita ut licet non manserint violæ, utcunque renovatæ, plus quam ad sesquihoram; tamen permanserit odor gratissimus, et viola ipsa non inferior, ad annum integrum. Notandum tamen est, quod non se colligat odor ad vires suas plenas, nisi post mensem ab infusione. In distillationibus vero aromatum maceratorum in spiritu vini patet, quod surgat primo phlegma aqueum et inutile, deinde aqua plus habens ex spiritu vini, deinde post aqua plus habens exaromate. Atque hujus generis quam plurima inveniuntur in distillationibus notatu digna. Verum hæc sufficiant ad exempla.

XLVII.

Inter *prærogativas instantiarum* ponemus loco vicesimo tertio *instantias quanti*, quas etiam *doses naturæ* (sumpto vocabulo a medicinis) vocare consuevimus. Eæ sunt, quæ mensurant virtutes per *quanta* corporum, et indicant quid *quantum corporis* faciat ad *modum* virtutis. Ac primo sunt quædam virtutes, quæ non subsistunt nisi in *quanto cosmico*, hoc est, tali *quanto*, quod habeat consensum cum configuratione et fabrica universi. Terra enim stat; partes ejus cadunt. Aquæ in maribus fluunt et refluunt; in fluviis minime, nisi per ingressum maris. Deinde etiam omnes fere virtutes particulares secundum *multum* aut *parvum* corporis operantur. Aquæ largæ non facile corrumpuntur; exiguæ cito. Mustum et cervisia maturescunt longe citius, et fiunt potabilia, in utribus parvis, quam in doliis magnis. Si herba ponatur in majore portione liquoris, fit infusio magis quam imbibitio: si in minore, fit imbibitio magis quam infusio. Aliud igitur erga corpus humanum est balneum, aliud levis irroratio. Etiam parvi rores in aëre nunquam cadunt, sed dissipantur, et cum aëre incorporantur. Et videre est in anhelitu super gemmas, parum illud humoris, quasi nubeculam vento dissipatam, continuo solvi. Etiam frustum ejusdem magnetis non trahit tantum ferri, quantum magnes integer. Sunt etiam virtutes, in quibus parvitas *quanti* magis potest; ut in penetrationibus, stylus acutus citius penetrat, quam obtusus; adamas punctuatus sculpit in vitro, et similia.

Verum non hic morandum est in indefinitis, sed etiam de *rationibus quanti* corporis erga modum virtutis inquirendum. Proclive enim foret credere, quod rationes quanti rationis virtutis adæquarent; ut si pila plumbea unius unciæ caderet in tali tempore, pila unciarum duarum deberet cadere duplo celerius, quod falsissimum est; nec eædem rationes in omni genere virtutum valent, sed longe diversæ. Itaque hæ mensuræ ex rebus ipsis petendæ sunt, et non ex verisimilitudine aut conjecturis.

Denique in omni inquisitione naturæ *quantum* corporis requiratur ad aliquod effectum, tanquam dosis, notandum; et cautiones de *nimis* et *parum* aspergendæ.

XLVIII.

Inter *prærogativas instantiarum* ponemus loco vicesimo quarto *instantias luctæ;* quas etiam *instantias prædominantiæ* appellare consuevimus. Eæ indicant prædominantiam et cessionem virtutum ad invicem; et quæ ex illis sit fortior et vincat, quæ infirmior et succumbat. Sunt enim motus et nixus corporum compositi, decompositi, et complicati, non minus quam corpora ipsa. Proponemus igitur primum species præcipuas motuum sive virtutum activarum; ut magis perspicua sit ipsarum comparatio in robore, et exinde demonstratio atque designatio *instantiarum luctæ* et *prædominantiæ*.

Motus primus sit motus *antitypiæ* materiæ, quæ inest in singulis portionibus ejus; per quem plane annihilari non vult: ita ut nullum incendium, nullum pondus aut depressio, nulla violentia, nulla denique ætas aut diuturnitas temporis possit redigere aliquam vel minimam portionem materiæ in nihilum, quin illa et sit aliquid, et loci aliquid occupet; et se (in qualicunque necessitate ponatur) vel formam mutando vel locum, liberet; vel (si non detur copia) ut est, subsistat; neque unquam res eo deveniat, ut aut nihil sit, aut nullibi. Quem motum schola (quæ semper fere et denominat et definit res, potius per effectus et incommoda, quam per causas interiores) vel denotat per illud axioma, quod *duo corpora non possint esse in uno loco;* vel vocat motum, *ne fiat penetratio dimensionum*. Neque hujus motus exempla proponi consentaneum est: inest enim omni corpori.

Sit motus secundus, motus (quem appellamus) *nexus;* per quem corpora non patiuntur se ulla ex parte sui dirimi a contactu alterius corporis, ut quæ mutuo nexu et contactu gaudeant: quem motum schola vocat motum *ne detur vacuum;* veluti cum aqua attrahitur sursum exsanctione, aut per fistulas; caro per ventosas; aut cum aqua sistitur, nec effluit in hydriis perforatis, nisi os hydriæ ad immittendum aërem aperiatur; et innumera id genus.

Sit motus tertius, motus (quem appellamus) *libertatis;* per quem corpora se liberare nituntur a pressura aut tensura præternaturali, et restituere se in dimensum corpori suo conveniens. Cujus motus etiam innumera sunt exempla: veluti (quatenus ad

liberationem a pressura) aquæ in natando, aëris in volando; aquæ in remigando, aëris in undulationibus ventorum, laminæ in horologiis. Nec inelegantcr se ostendit motus aëris compressi in sclopetis ludieris puerorum, cum alnum aut simile quiddam excavant, et infarciunt frusto alicujus radicis succulentæ, vel similium, ad utrosque fines; deinde per embolum trudunt radieem, vel hujusmodi farcimentum in foramen alterum: unde emittitur et ejicitur radix cum sonitu ad foramen alterum, idque antequam tangatur a radiee, aut farcimento eitimo, aut embolo. Quatenus vero ad liberationem a tensura, ostendit se hic motus in aëre post exsuetionem in ovis vitreis remanente; in chordis, in eorio, et panno; resilientibus post tensuras suas, nisi tensuræ illæ per moram invaluerint, ete. Atque hunc motum sehola sub nomine motus ex *forma elementi* innuit; satis quidem inscite, cum hic motus non tantum ad aërem, aquam, aut flammam pertineat, sed ad omnem diversitatem consistentiæ; ut ligni, ferri, plumbi, panni, membranæ, ete. in quibus singula corpora suæ habent dimensionis modulum; et ab eo ægre ad spatium aliquod notabile abripiuntur. Verum quia motus iste libertatis omnium est maxime obvius, et ad infinita spectans, consultum fuerit eum bene et perspicue distinguere. Quidam enim valde negligenter confundunt hunc motum cum gemino illo motu *antitypiæ* et *nexus;* liberationem scilicet a pressura, cum motu *antitypiæ;* a tensura, eum motu *nexus:* ac si ideo eederent aut se dilatarent corpora compressa, nc sequeretur *penetratio dimensionum;* ideo resilirent et contraherent se corpora tensa, ne sequeretur *vacuum.* Atqui si aër compressus se vellet recipere in densitatem aquæ, aut lignum in densitatem lapidis, nil opus foret *penetratione dimensionum;* et nihilominus longe major posset esse compressio illorum, quam illa ullo modo patiuntur. Eodem modo si aqua se dilatate vellet in raritatem aëris, aut lapis in raritatem ligni, non opus foret *vacuo:* et tamen longe major possit fieri extensio eorum, quam illa ullo modo patiuntur. Itaque non reducitur res ad *penetrationem dimensionem* et *vacuum,* nisi in ultimitatibus condensationis et rarefactionis; cum tamen isti motus longe eitra eas sistant et versentur; neque aliud sint, quam desidcrea corporum conservandi se in consistentiis suis (sive, si malint, in formis suis) nec ab iis receedendi subito, nisi per modos suaves, ae per consensum alterentur. At longe magis necessarium est (quia multa seeum trahit) ut intimetur hominibus, motum violentum (quem nos *mechanicum;* Democritus, qui in motibus suis primis expediendis etiam infra mediocres philosophos ponendus est, motum *plagæ* vocavit) nil aliud essc quam motum libertatis, scilieet a compressione ad relaxationem. Etenim in omni sive simplici protrusione, sive volatu per aërem, non fit summotio ant latio localis, antequam partes corporis prætcrnaturaliter patiantur et eomprimantur ab impellente. Tum vero partibus aliis alias per sucessionem trudentibus, fertur totum; nec solum progrediendo, sed etiam notando simul; ut etiam hoc modo partes se liberare, aut magis ex æquo tolerare possint. Atque de hoc motu hactenus.

Sit motus quartus, motus cui nomen dedimus motus *hyles:* qui modus antistrophus est quodammodo motui, de quo diximus, libertatis. Etenim in motu libertatis corpora novum dimensum, sive novam sphæram, sive novam dilatationem aut contractionem (hæc enim verborum varietas idem innuit) exhorrent, respuunt, fugiunt, et resilire ac veterem consistentiam reeuperare totis viribus contendunt. At contra in hoc motu *hyles,* eorpora novam sphæram sive dimensum appetunt; atque ad illud libenter et propere, et quandoque valentissimo nixu (ut in pulvere pyrio) aspirant. Instrumenta autem hujus motus, non sola eerte, sed potentissima, aut saltem frequentissima, sunt ealor et frigus. Exempli gratia: aër si per tensuram (velut per exsuetionem in ovis vitreis) dilatetur, magno laborat desiderio seipsum restituendi. At admoto ealore, e contra appetit dilatari, et concupiscit novam sphæram, et transit et migrat in illam libenter, tanquam in novam formam (ut loquuntur). Nec post dilatationem nonnullam dc reditu curat, nisi per admotionem frigidi ad eam invitetur; quæ non reditus est, sed transmutatio repetita. Eodem modo et aqua, si per compressionem arctetur, recaleitrat; et vult fieri qualis fuit, scilicet latior. At si interveniat frigus intensum et eontinuatum, mutat se sponte sua et libenter in condensationem glaciei; atque si plane continuetur frigus, nec a temporibus interrumpatur (ut fit in speluncis et cavernis paulo profundioribus) vertitur in erystallum, aut materiam similem, nec unquam restituitur.

Sit motus quintus, motus *continuationis:* Intelligimus autem non continuationis simplicis et primariæ, cum corpore aliquo altero (nam ille est motus *nixus)* sed continuationis sui, in corpore eerto. Certissimum enim est, quod corpora omnia solutionem eontinuitatis exhorreant; alia magis, alia minus, sed omnia aliquatenus. Nam ut in corporibus duris (veluti chalybis, vitri) reluctatio contra discontinuationem est maxime robusta et valida; ita etiam in liquoribus, ubi cessare aut languere saltem videtur motus ejusmodi, tamen non prorsus reperitur privatio ejus; sed plane inest ipsis in gradu tanquam infimo, et prodit se in experimentis plurimis; sieut in bullis, in rotunditate guttarum, in filis tenuioribus stillieidiorum, et in sequacitate corporum glutinosorum, et ejusmodi. Sed maxime omnium se ostendit appetitus iste, si discontinuatio tentetur usque ad fraetiones minores. Nam in mortariis, post contusionem ad certum gradum, non amplius operatur pistillum: aqua non subintrat rimas minores: quin et ipsc aër, non obstante subtilitate corporis ipsius, poros vasorum paulo solidiorum non pertransit subito, nec nisi per diuturnam insinuationem.

Sit motus sextus, motus quem nominamus motum *ad lucrum,* sive *motum indigentiæ.* Is est, per quem corpora, quando versantur inter plane heterogenea et quasi inimiea, si forte naneiscantur copiam aut eommoditatem evitandi illa heterogenea, et se applieandi ad magis eognata (lieet illa ipsa cognata talia fuerint, quæ non habeant aretum eonsensum cum ipsis) tamen statim ea amplectuntur, et tanquam potiora malunt; et lueri loco (unde voeabulum sumpsimus) hoc ponere videntur, tanquam talium eorporum indiga. Exempli gratia; aurum, aut aliud metallum

foliatum, non delectatur aëre circumfuso. Itaque si corpus aliquod tangibile et erassum nanciscatur (ut digitum, papyrum, quidvis aliud) adhærit statim, nec facile divellitur. Etiam papyrus, aut pannus, et hujusmodi, non bene se habeat cum aëre, qui inseritur et commistus est in ipsorum poris. Itaque aquam aut liquorum libenter imbibunt, et aërem exterminant. Etiam saccharum, aut spongia infusa in aquam aut vinum, licet pars ipsorum emineat, et longe attollatur supra vinum aut aquam, tamen aquam aut vinum paulatim et per gradus attrahunt in sursam.

Unde optimus canon sumitur aperturæ et solutionum corporum. Missis enim corrosivis et aquis fortibus, quæ viam sibi aperiunt; si possit inveniri corpus proportionatum et magis consentiens et amicum corpori alicui solido, quam illud, cum quo tanquam per necessitatem commiscetur; statim se aperit et relaxat corpus, et illud alterum intro recipit, priore exeluso aut summoto. Neque operatur aut potest iste *motus ad lucrum*, solummodo ad tactum. Nam electrica operatio (de qua Gilbertus et alii post eum tantas excitarunt fabulas) non alia est quam corporis per fricationem levem excitati appetitus, qui aërem non bene tolerat, sed aliud tangibile mavult, si reperiatur in propinquo.

Sit motus septimus, motus (quem appellamus) *congregationis majoris*; per quem corpora feruntur ad massas connaturalium suorum; gravia ad globum terræ; levia ad ambitum cœli. Hunc schola nomine *motus naturalis* insignivit, levi contemplatione; quia scilicet nil spectabile erat ab extra, quod eum motum cieret (itaque rebus ipsis innatum atque insitum putavit) aut forte quia non cessat. Nec mirum: semper enim præsto sunt cœlum et terra; cum e contra causæ et origines plurimorum ex reliquis motibus interdum absint, interdum adsint. Itaque hunc, quia non intermittit, sed cæteris intermittentibus statim occurrit, perpetuum et proprium; reliquos, adscititios posuit. Est autem iste motus revera satis infirmus et hebes, tanquam is, qui (nisi sit moles corporis major) cæteris motibus, quamdiu operantur, sedat et succumbat. Atque cum hic motus hominum cogitationes ita impleverit, ut fere reliquos motus occultaverit; tamen parum est, quod homines de eo sciunt, sed in multis circa illum erroribus versantur.

Sit motus octavus, motus *congregationis minoris*; per quem partes homogeneæ in corpore aliquo separant se ab heterogeneis, et coëunt inter sese; per quem etiam corpora integra ex similitudine substantiæ se amplectuntur et fovent et, quandoque ad distantiam aliquam congregantur, attrahantur, et conveniunt: Veluti cum in lacte flos lactis post moram aliquam supernatat; in vino fæces et tartarum subsidunt. Neque enim hæc fiunt per motum gravitatis et levitatis tantum, ut aliæ partes summitatem petant, aliæ ad imum vergant; sed multo magis per desiderium homogeneorum inter se coëundi et se uniendi. Differt autem iste motus a motu *indigentiæ*, in duobus: Uno, quod in motu *indigentiæ* sit stimulus major naturæ malignæ et contrariæ: at in hoc motu (si modo impedimenta et vincula absint) uniuntur partes per amicitiam, licet absit natura alicua, quæ litem moveat: Altero, quod arctior sit unio, et tanquam majore cum delectu. In illo enim modo evitetur corpus inimicum, corpora etiam non admodum cognata coacurrunt: At in hoc coëant substantiæ, germana plane similitudine devinctæ; et conflantur tanquam in unum. Atque hic motus omnibus corporibus compositis inest; et se facile conspiciendum in singulis daret, nisi ligaretur et frænaretur per alios corporum appetitus et necessitates, quæ istam coitionem distarbant.

Ligatur autem motus iste plerumque tribus modis: torpore corporum; fræno corporis dominantis; et motu externo. Ad torporem corporum quod attinet; certum est inesse corporibus tangibilibus pigritiam quandam secundum magis et minus, et exhorrentiam motus localis; ut nisi excitentur, malint statu suo (pront sunt) esse contenta, quam in melius se expedire. Discutitur autem iste torpor triplici auxilio: aut per calorem, aut per virtutem alicujus cognati corporis eminentem, aut per motum vividum et potentem. Atque primo quoad auxilium caloris: hinc fit, quod calur pronuncietur esse illud, quod *separet heterogenea, congregat homogenea*: quam definitionem Peripateticorum merito derisit Gilbertus; dicens, eam esse perinde ac si quis diceret ac definiret hominem illud esse, quod serat triticum, et plantet vineas; esse enim definitionem tantum per effectus, eosque particulares. Sed adhuc magis culpanda est illa definitio; quia etiam effectus illi (quales, quales sunt) non sunt ex proprietate caloris, sed tantum per accidens (idem enim facit frigus, ut postea dicemus) nempe ex desiderio partium homogenearum coëundi; adjuvante tantum calore ad discutiendum torporem, qui torpor desiderium illud antea ligaverat. Quoad vero auxiliam virtutis inditæ a corpore cognato; illud mirabiliter elucescit in magnete armato, qui excitat in ferro virtutem detinendi ferrum per similitudinem substantiæ, discusso torpore ferri per virtutem magnetis. Quoad vero auxilium motus, conspicitur illud in sagittis ligneis, cuspide etiam lignea; quæ altius penetrant in alia ligna, quam si fuissent armatæ ferro, per similitudinem substantiæ, discusso torpore ligni per motum celerem: de quibus duobus experimentis etiam in aphorismo de *instantiis clandestinis* diximus.

Ligatio vero motus *congregationis minoris*, quæ fit per frænum corporis dominantis, conspicitur in solutione sanguinis et urinarum per frigus. Quamdiu enim repleta fuerint corpora illa spiritu agili, qui singulas eorum partes cujuscunque generis ipse ut dominus totius ordinat et cohibet; tamdiu non coëunt heterogenea propter frænum: sed postquam ille spiritus evaporaverit, aut suffocatus fuerit per frigus, tam solutæ partes a fræno, coëunt secundum desiderium suum naturale. Atque ideo fit, ut omnia corpora, quæ continent spiritum acrem (ut sales, et hujusmodi) durent et non solvantur, ob frænum permanens et durabile spiritus dominantis et imperiosi.

Ligatio vero motus *congregationis minoris*, quæ fit per motum externum, maxime conspicitur in agitationibus corporum, per quas arcetur putrefactio. Omnis enim putrefactio fundatur in congregatione homogeneorum; unde paulatim fit corruptio prioris (quam vocant) formæ, et generatio novæ. Nam

putrefactionem, quæ sternit viam ad generationem novæ formæ, præcedit solutio veteris: quæ est ipsa coitio ad homogeneam. Ea vero, si non impedita fuerit, fit solutio simplex; sin occurrant varia quæ obstant, sequuntur putrefactiones, quæ sunt rudimenta generationis novæ. Quod si (id quod nunc agitur) fiat agitatio frequens per motum externum; tum vero motus iste coitionis (qui est delicatus et mollis, et indiget quiete ab externis) disturbatur et cessat; ut fieri videmus in innumeris: veluti, cum quotidiana agitatio aut profluentia aquæ arceat putrefactionem; venti arceant pestilentiam aëris; grana in granariis versa et agitata maneant pura; omnia denique agitata exterius non facile putrefiant interius.

Superest ut non omittatur coitio illa partium corporum, unde fit præcipue induratio et desiccatio. Postquam enim spiritus, aut humidum in spiritum versum, evolaverit in aliquo corpore porosiore (ut in ligno, osse, membrana, et hujusmodi) tum partes crassiores majore nixu contrahuntur et coëunt, unde sequitur induratio aut desiccatio: quod existimamus fieri, non tam ob motum *nexus*, ne detur vacuum, quam per motum istum amicitiæ et unionis.

Ad coitionem vero ad distans quod attinet, ea infrequens est et rara: et tamen in pluribus inest, quam quibus observatur. Hujus simulacra sunt, cum bulla solvat bullam; medicamenta ex similitudine substantiæ trahant humores; chorda in diversis fidibus ad unisonum moveat chordam; et hujusmodi. Etiam in spiritibus animalium hunc motum vigere existimamus, sed plane incognitum: At eminet certe in magnete et ferro excito. Cum autem de motibus magnetis loquimur, distinguendi plane sunt. Quatuor enim virtutes sive operationes sunt in magnete, quæ non confundi, sed separari debent, licet admiratio hominum et stupor eas commiscuerit. Una, coitionis magnetis ad magnetem, vel ferri ad magnetem, vel ferri exciti ad ferrum. Secunda, verticitatis ejus ad septentriones et austrum, atque simul declinationis ejus. Tertia, penetrationis ejus per aurum, vitrum, lapidem, omnia. Quarta, communicationis virtutis ejus de lapide in ferrum, et de ferro in ferrum, absque communicatione substantiæ. Verum hoc loco de prima virtute ejus tantum loquimur, videlicet coitionis. Insignis etiam est motus coitionis argenti vivi et auri; adeo utaurum alliciat argentum vivum licet confectum in unguenta: atque operarii inter vapores argenti vivi soleant tenere in ore frustum auri ad colligendas emissiones argenti vivi, alias crania et ossa eorum invasuras; unde etiam frustum illud paulo post albescit. Atque de motu *congregationis minoris* hæc dicta sint.

Sit motus nonus, *motus magneticus*, qui licet sit ex genere motus *congregationis minoris*, tamen si operetur ad distantias magnas, et super massas rerum magnas, inquisitionem meretur separatam; præsertim si nec incipiat a tactu, quemadmodum plurimi, nec perducat actionem ad tactum, quemadmodum omnes motus congregativi; sed corpora tantum elevet, aut ea intumescere faciat, nec quicquam ultra. Nam si luna attollat aquas, aut turgescere aut intumescere faciat humida; aut cœlum stellatum attrahat planetas versus sua apogæa; aut sol alliget astra Veneris et Mercurii, ne longius absint a corpore ejus, quam ad distantiam certam; videntur hi motus nec sub *congregatione majore*, nec sub *congregatione minore* bene collocari, sed esse tanquam congregativa media et imperfecta, ideoque speciem debere constituere propriam.

Sit motus decimus, *motus fugæ*; motus scilicet motui *congregationis minoris* contrarius; per quem corpora ex antipathia fugiunt et fugant inimica, seque ab illis separant, aut cum illis miscere se recusant. Quamvis enim videri possit in aliquibus hic motus esse motus tantum per accidens, aut per consequens, respectu motus *congregationis minoris*, quia nequeunt coire homogenea, nisi heterogeneis exclusis et remotis: tamen ponendus est motus iste per se, et in speciem constituendus, quia in multis appetitus *fugæ* cernitur magis principalis, quam appetitus coitionis.

Eminet autem hic motus insigniter in excretionibus animalium, nec minus etiam in sensuum nonnullorum odiosis objectis, præcipue in olfactu, et gustu. Odor enim fœtidus ita rejicitur ab olfactu ut etiam inducat in os stomachi motum expulsionis per consensum; sapor amarus et horridus ita rejicitur a palato aut gutture, ut inducat per consensum capitis conquassationem et horrorem. Veruntamen etiam in aliis locum habet iste motus: Conspiciitur enim in antiperistasibus nonnullus; ut in aëris media regione, cujus frigora videntur esse rejectiones naturæ frigidæ ex confiniis cœlestium; quemadmodum etiam videntur magni illi fervores et inflammationes, quæ inveniuntur in locis subterraneis, esse rejectiones naturæ calidæ ab interioribus terræ. Calor enim et frigus, si fuerint in quanto minore, se invicem perimunt; sin fuerint in massis majoribus, et tanquam justis exercitibus, tum vero per conflictum se locis invicem summovent et ejiciunt. Etiam tradunt cinnamomum et odorifera, sita juxta latrinas et loca fœtida, diutius odorem retinere, quia recusant exire et commisceri cum fœtidis. Certe argentum vivum, quod alias se re-uniret in corpus integrum, prohibetur per salivam hominis, aut axungiam porci, aut terebinthinam, et hujusmodi, ne partes ejus coëant propter malum consensum, quem habent cum hujusmodi corporibus; a quibus undique circumfusis se retrahunt; adeo ut fortior sit earum *fuga* ab istis interjacentibus, quam desiderium uniendi se cum partibus sui similibus; id quod vocant *mortificationem* argenti vivi. Etiam quod oleum cum aqua non misceatur, non tantum in causa est differentia levitatis; sed malus ipsorum consensus: ut videre est in spiritu vini, qui cum levior sit oleo, tamen se bene miscet cum aqua. At maxime omnium insignis est motus *fugæ* in nitro, et hujusmodi corporibus crudis, quæ flammam exhorrent; ut in pulvere pyrio, argento vivo, necnon in auro. *Fuga* vero ferri ab altero polo magnetis a Gilberto bene notatur non esse *fuga* propria, sed conformitas, et coitio ad situm magis accommodatum.

Sit motus undecimus, *motus assimilationis*, sive *multiplicationis* sui, sive etiam *generationis simplicis*. *Generationem* autem *simplicem* dicimus non corporum integralium, ut in plantis, aut animalibus; sed corporum similarium. Nempe per hunc motum corpora similaria vertunt corpora alia affinia, aut saltem

bene disposita et præparata, in substantiam et naturam suam: ut flamma, quæ super halitus et oleosa multiplicat se, et generat novam flammam; aër, qui supra aquam et aquea multiplicat se, et generat novum aërem; spiritus vegetabilis et animalis, qui super tenuiores partes, tam aquei quam oleosi, in alimentis suis multiplicat se, et generat novum spiritum; partes solidæ plantarum et animalium, veluti folium, flos, caro, os, et sic de cæteris, quæ singulæ ex succis alimentorum assimilant, et generant substantiam successivam et episuiam. Neque enim quenquam cum Paracelso delirare juvet, qui (distillationibus suis scilicet occœcatus) nutritionem per separationem tantum fieri voluit; quodque in pane vel sibo lateat oculus, nasus, cerebrum, jecur; in succo terræ radix, folium, flos. Etenim sicut faber ex rudi massa lapidis vel ligni, per separationem et rejectionem superflui, educit folium, florem, oculum, nasum, manum, pedem, et similia; ita Archæum illum fabrum internum ex alimento per separationem et rejectionem educere singula membra et partes, asserit ille. Verum, missis nugis, certissimum est partes singulas, tam similares quam organicas, in vegetabilibus et animalibus, succos alimentorum suorum fere communes, aut non multum diversos, primo attrahere cum nonnullo delectu, deinde assimilare, et vertere in naturam suam. Neque *assimulatio* ista, aut *generatio* simplex, fit solum in corporibus animatis; verum et inanimata ex hac re participant: veluti de flamma et aëre dictum est. Quinetiam spiritus emortuus, qui in omni tangibili animato continetur, id perpetuo agit, ut partes crassiores digerat et vertat in spiritum, qui deinde exeat; unde fit diminutio ponderis et exsiccatio, ut alibi diximus. Neque etiam respuenda est in *assimilatione* accretio illa, quam vulgo ab alimentatione distinguunt; veluti cum lutum inter lapillos concrescit, et vertitur in materiam lapideam; squammæ circa dentes vertuntur in substantiam non minus duram, quam sunt dentes ipsi, etc. Sumus enim in ea opinione, inesse corporibus omnibus desiderium assimilandi, non minus quam coëundi ad homogenea; verum ligatur ista virtus, sicut et illa; licet non iisdem modis. Sed modos illos, necnon solutionem ab iisdem, omni diligentia inquirere oportet; quia pertinent ad senectutis refocillationem. Postremo videtur notatu dignum, quod in novem illis motibus, de quibus diximus, corpora tantum naturæ suæ conservationem appetere videntur; in hoc decimo autem propagationem.

Sit motus duodecimus *motus excitationis*; qui motus videtur esse ex genere *assimilationis*, atque eo nomine quandoque a nobis promiscue vocatur. Est enim motus diffusivus, et communicativus, et transitivus, et multiplicativus, sicut et ille; atque effectu (ut plurimum) consentiunt, licet efficiendi modo et subjecto differant. Motus enim *assimilationis* procedit tanquam cum imperio et potestate; jubet enim et cogit assimilatum in assimilantem verti et mutari. At motus *excitationis* procedit tanquam arte et insinuatione, et furtim; et invitat tantum, et disponit excitatum ad naturam excitantis. Etiam motus *assimilationis* multiplicat et transformat corpora et substantias; veluti, plus fit flammæ, plus aëris, plus spiritus, plus carnis. At in motu *excitationis*, multiplicantur et transeunt virtutes tantum; et plus fit calidi, plus magnetici, plus putridi. Eminet autem iste motus præcipue in calido et frigido. Neque enim calor diffundit se in calefaciendo per communicationem primi caloris; sed tantum per *excitationem* partium corporis ad motum illum, qui est forma calidi; de quo in *vindemiatione prima de natura calidi* diximus. Itaque longe tardius et difficilius excitatur calor in lapide aut metallo, quam in aëre; ob inhabilitatem et impromptitudinem corporum illorum ad motum illum; ita ut verisimile sit, posse esse interius versus viscera terræ materias, quæ calefieri prorsus respuant; quia ob condensationem majorem spiritu illo destituuntur, a quo motus iste excitationis plerumque incipit. Similiter magnes induit ferrum nova partium dispositione, et motu conformi; ipse autem nihil ex virtute perdit. Similiter fermentum panis, et flos cervisiæ, et coagulum lactis, et nonnulla ex venenis, excitant et invitant motum in massa farinaria, aut cervisia, aut casco, aut corpore humano successivum et continuatum: non tam ex vi excitantis, quam ex prædispositione et facili cessione excitati.

Sit motus decimus tertius, *motus impressionis*; qui motus est etiam ex genere motus *assimilationis*; estque ex diffusivis motibus subtilissimus. Nobis autem visum est eum in speciem propriam constituere, propter differentiam insignem quam habet erga priores duos. Motus enim *assimilationis* simplex corpora ipsa transformat; ita ut si tollas primum movens, nihil intersit ad ea quæ sequuntur. Neque enim prima accensio in flammam, aut prima versio in aërem, aliquid facit ad flammam aut aërem, in generatione succedentem. Similiter, motus *excitationis* omnino manet, remoto primo movente, ad tempora bene diuturna; ut in corpore calefacto, remoto primo calore; in ferro excito, remoto magnete; in massa farinaria, remoto fermento. At motus *impressionis*, licet sit diffusivus et transitivus, tamen perpetuo pendere videtur ex primo movente: adeo ut, sublato aut cessante illo, statim deficiat et pereat; itaque etiam momento, aut saltem exiguo tempore transigitur. Quare motus illos *assimilationis* et *excitationis*, *motus generationis Jovis*, quia generatio manet; hunc autem motum, *motum generationis Saturni*, quia natus statim devoratur et absorbetur, appellare consuevimus. Manifestat se vero hic motus in tribus; in lucis radiis; sonorum percussionibus; et magneticis, quatenus ad communicationem. Etenim, amota luce, statim pereunt colores, et reliquæ imagines ejus; amota percussione prima, et quassatione corporis inde facta, paulo post perit sonus. Licet enim soni etiam in medio per ventos tanquam per undas agitentur: tamen diligentius notandum est, quod sonus non tam diu durat, quam fit resonatio. Etenim impulsa campana, sonus ad bene magnum tempus continuari videtur; unde quis facile in errorem labatur, si existimet toto illo tempore sonum tanquam natare et hærere in aëre; quod falsissimum est. Etenim illa resonatio non est idem sonus numero, sed renovatur. Hoc autem manifestatur ex sedatione sive cohibitione corporis percussi. Si enim sistatur et detineatur campana

fortiter, et fiat immobilis, statim perit sonus, nec resonat amplius: ut in chordis; si post primam percussionem tangatur chorda, vel digito, ut in lyra; vel calamo, ut in espinetis; statim desinit resinatio. Magnete autem remoto, statim ferrum decidit. Luna autem a mari non potest removeri: nec terra a ponderoso dum cadit. Itaque de illis nullum fieri potest experimentum; sed ratio eadem est.

Sit motus decimus quartus, *motus configurationis*, aut *situs;* per quem corpora appetere videntur non coitionem aut separationem aliquam; sed situm, et collocationem, et *configurationem* cum aliis. Est autem iste motus valde abstrusus, nec bene inquisitus. Atque in quibusdam videtur quasi incausabilis; licet revera (ut existimamus) non ita sit. Etenim si quæratur, cur potius cœlum volvatur ab oriente in occidentem, quam ab occidente in orientem: aut cur vertatur circa polos positos juxta Ursas, potius quam circa Orionem, aut ex alia aliqua parte cœli: videtur ista quæstio tanquam quædam ecstasis; cum ista potius ab experientia, et ut positiva, recipi debeant. At in natura profecto sunt quædam ultima et incausabilia; verum hoc ex illis non esse videtur. Etenim hoc fieri existimamus ex quadam harmonia et consensu mundi, qui adhuc non venit in observationem. Quod si recipiatur motus terræ ab occidente in orientem; eædem manent quæstiones. Nam et ipsa super aliquos polos movetur. Atque, cur tandem debeant isti poli collocari magis ubi sunt, quam alibi? Item verticitas, et directio, et declinatio magnetis ad hunc motum referuntur. Etiam inveniuntur in corporibus tam naturalibus quam artificialibus, præsertim consistentibus, et non fluidis, collocatio quædam et positura partium, et tanquam villi et fibræ; quæ diligenter investigandæ sunt; utpote sine quarum inventione corpora illa commode tractari aut regi non possunt. At circulationes illas in liquidis, per quas illa, dum pressa sint, antequam se liberare possunt, se invicem relevant, ut compressionem illam ex æquo tolerent, motui *libertatis* verius assignamus.

Sit motus decimus quintus, *motus per transitionis*, sive *motus secundum meatus;* per quem virtutes corporum magis aut minus impediuntur, aut provehuntur a mediis ipsorum, pro natura corporum et virtutum operantium, atque etiam mediі. Aliud enim medium luci convenit, aliud sono, aliud calori et frigori, aliud virtutibus magneticis, necnon aliis nonnullis respective.

Sit motus decimus sextus, *motus regius* (ita enim eum appellamus) sive *politicus;* per quem partes in corpore aliquo prædominantes et imperantes, reliquas partes frænant, domant, subigunt, ordinant, et cogunt eas adunari, separari, consistere, moveri, collocari, non ex desideriis suis, sed prout in ordine sit, et conducat ad bene esse partis illius imperantis; adeo ut sit quasi *regimen* et *politia* quædam, quam exercet pars regens in partes subditas. Eminet autem hic motus præcipue in spiritibus animalium, qui motus omnes partium reliquarum, quamdiu ipse in vigore est, contemperat. Invenitur autem in aliis corporibus in gradu quodam inferiore; quemadmodum dictum est de sanguine et urinis, quæ non solvuntur, donec spiritus, qui partes earum commiscebat et cohibebat, emissus fuerit aut suffocatus. Neque iste motus omnino spiritibus proprius est, licet in plerisque corporibus spiritus dominentur ob motum celerem, et penetrationem. Veruntamen in corporibus magis condensatis, nec spiritu vivido et vigente (qualis inest argento vivo et vitriolo) repletis, dominantur potius partes crassiores; adeo ut nisi frænum et jugum hoc arte aliqua excutiatur, de nova aliqua hujusmodi corporum transformatione minime sperandum sit. Neque vero quispiam nos oblitos esse existimet ejus quod nunc agitur, quia, cum ista series et distributio motuum ad nil aliud spectet, quam ut illorum *prædominantia* per *instantias luctæ* melius inquiratur, jam inter motus ipsos *prædominantiæ* mentionem faciamus. Non enim in descriptione *motus* istius *regii*, de *prædominantia* motuum aut virtutum tractamus, sed de *prædominantia* partium in corporibus. Hæc enim ea est prædominantia, quæ speciem istam motus peculiarem constituit.

Sit motus decimus septimus, *motus rotationis spontaneus;* per quem corpora motu gaudentia, et bene collocata, natura sua fruuntur, atque scipsa sequuntur, non aliud; et tanquam proprius petunt amplexus. Etenim videntur corpora aut movere sine termino; aut plane quiescere; aut ferri ad terminum, ubi pro natura sua aut rotant aut quiescant. Atque quæ bene collocata sunt, si motu gaudeant, movent per circulum: motu scilicet æterno et infinito. Quæ bene collocata sunt, et motum exhorrent, prorsus quiescunt. Quæ non bene collocata sunt, movent in linea recta (tanquam tramite brevissimo) ad consortia suorum connaturalium. Recipit autem motus iste *rotationis* differentias novem. Primam, centri sui, circa quod corpora movent: secundam, polorum suorum, supra quos movent: tertiam, circumferentiæ sive ambitus sui, prout distant a centro: quartam, incitationis suæ, prout celerius aut tardius rotant: quintam, consequutionis motus sui, veluti ab oriente in occidentem, aut ab occidente in orientem: sextam, declinationis a circulo perfecto per spiras longius aut propius distantes a centro suo: septimam, declinationis a circulo perfecto per spiras longius aut propius distantes a polis suis: octavam, distantiæ propioris aut longioris spirarum suarum ad invicem: nonam et ultimam, variationis ipsorum polorum, si sint mobiles: quæ ipsa ad rotationem non pertinet, nisi fiat circulariter. Atque iste motus communi et inveterata opinione habetur pro proprio cœlestium. Attamen gravis de illo motu lis est inter nonnullos tam ex antiquis quam modernis, qui *rotationem* terræ attribuerunt. At multo fortasse justior movetur controversia (si modo res non sit omnino extra controversiam) an motus videlicet iste (concesso quod terra stet) cœli finibus contineatur, an potius descendat, et communicetur aëri et aquis. Motum autem *rotationis* in missilibus, ut in spiculis, sagittis, pilis sclopetorum, et similibus, omnino ad motum *libertatis* rejicimus.

Sit motus decimus octavus, *motus trepidationis*, cui (ut ab astronomis intelligitur) non multum fidei adhibemus. Nobis autem, corporum naturalium appetitus ubique serio perscrutantibus, occurrit iste motus; et constitui debere videtur in speciem. Est autem hic motus veluti æternæ cujusdam captivitatis. Videlicet ubi corpora non omnino pro natura sua

bene locata, et tamen non prorsus male se habentia, perpetuo trepidant, et irrequiete se agunt, nec statu suo contenta, nec ulterius ausa progredi. Talis invenitur motus in corde et pulsibus animalium; et necesse est ut sit in omnibus corporibus, quæ statu ancipiti ita degunt inter commoda et incommoda, ut distracta liberare se tentent, et denuo repulsam patiantur, et tamen perpetuo experiantur.

Sit motus decimus nonus et postremus, motus ille cui vix nomen motus competit, et tamen est plane motus: quem motum, *motum decubitus*, sive *motum exhorrentiæ motus*, vocare licet. Per hunc motum terra stat mole sua, moventibus se extremis suis in medium; non ad centrum imaginativum, sed ad unionem. Per hunc etiam appetitum omnia majorem in modum condensata motum exhorrent; atque illis pro omni appetitu est non moveri; et licet infinitis modis vellicentur et provocentur ad motum, tamen naturam suam (quoad possunt) tuentur. Quod si ad motum compellantur, tamen hoc agere semper videntur, ut quietem et statum suum recuperent, neque amplius moveant. Atque circa hoc certe se agilia præbent, et satis perniciter et rapide (ut pertæsa et impatientia omnis moræ) contendunt. Hujus autem appetitus imago ex parte tantum cerni potest; quia hic apud nos, ex subactione et concoctione cœlestium, omne tangibile non tantum non condensatum est ad ultimitatem, sed etiam cum spiritu nonnullo miscetur.

Proposuimus itaque jam species, sive elementa simplicia motuum, appetituum, et virtutum activarum, quæ sunt in natura maxime catholica: neque parum scientiæ naturalis sub illis adumbratum est. Non negamus tamen, et alias species fortasse addi posse; atque istas ipsas divisiones secundum veriores rerum venas transferri; denique in minorem numerum posse redigi. Neque tamen hoc de divisionibus aliquibus abstractis intelligimus: veluti si quis dicat, corpora appetere vel conservationem, vel exaltationem, vel propagationem, vel fruitionem naturæ suæ: aut si quis dicat, motus rerum tendere ad conservationem et bonum, vel universi, ut *antitypiam* et *nexum*: vel universitatum magnarum, ut motus *congregationis majoris, rotationis*, et *exhorrentiæ motus*; vel formarum specialium, ut reliquos. Licet enim hæc vera sint, tamen nisi terminentur in materia et fabrica secundum veras lineas, speculativa sunt, et minus utilia. Interim sufficient, et boni erunt usus, ad pensitandas *prædominantias* virtutum, et exquirendas *instantias luctæ*; id quod nunc agitur.

Etenim ex his, quos proposuimus, motibus, alii prorsus sunt invincibiles; alii aliis sunt fortiores, et illos ligant, frænant, disponunt; alii aliis longius jaculantur; alii alios tempore et celeritate prævertunt; alii alios fovent, roborant, ampliant, accelerant.

Motus *antitypiæ* omnino est adamantinus et invincibilis: utrum vero motus *nexus* sit invincibilis, adhuc hæremus. Neque enim pro certo affirmavcrimus, utrum detur vacuum, sive coacervatum, sive permistum. At de illo nobis constat; rationem illam, propter quam introductum est vacuum a Leucippo, et Democrito (videlicet quod absque eo non possent eadem corpora complecti et implere majora et minora spatia) falsam esse. Est enim plane *plica materiæ* complicantis et replicantis se per spatia inter certos fines absque interpositione vacui: neque est in aëre, ex vacuo, bis millies (tantum enim esse oportet) plus quam in auro. Id quod ex potentissimis corporum pneumaticorum virtutibus (quæ aliter tanquam pulveres minuti natarent in vacuo) et multis aliis demonstrationibus, nobis satis liquet. Reliqui vero motus regunt et reguntur inviceni, pro rationibus vigoris, quanti, incitationis, ejaculationis, necnon tum auxiliorum, tum impedimentorum, quæ occurrunt.

Exempli gratia; magnes armatus nonnullus detinet et suspendit ferrum ad sexageculplum pondus ipsius; eo usque dominatur motus *congregationis minoris* super motum *congregationis majoris*: quod si majus fuerit pondus, succumbit. Vectis tanti roboris sublevabit tantum pondus; eo usque dominatur motus *libertatis* super motum *congregationis majoris*; sin majus fuerit pondus, succumbit. Corium tensum ad tensuram talem non rumpitur; eo usque dominatur motus *continuationis* super motum *tensuræ*; quod si ulterior fuerit tensura, rumpitur corium, et succumbit motus *continuationis*. Aqua per rimam perforationis talis effluit; eo usque dominatur motus *congregationis majoris* super motum *continuationis*; quod si minor fuerit rima, succumbit; et vincit motus *continuationis*. In pulvere sulphuris solius immissi in sclopetum cum pila, et admoto igne, non emittitur pila; in eo motus *congregationis majoris* vincit motum *hyles*. At in pulvere pyrio emisso vincit motus *hyles* in sulphure; adjutus motibus *hyles* et *fugæ* in nitro. Et sic de cæteris. Etenim *instantiæ luctæ* (quæ indicant *prædominantiam* virtutum, et secundum quas rationes et calculos prædominentur et succumbant) acri et sedula diligentia undique sunt conquirendæ.

Etiam modi et rationes ipsius succumbentiæ motuum diligenter sunt introspiciendæ. Nempe, an omnino cessent, vel potius usque nitantur, sed ligentur. Etenim in corporibus hic apud nos nulla vera est quies, nec in integris, nec in partibus; sed tantum secundum apparentiam. Quies autem ista apparens, causatur aut per *æquilibrium*; aut per absolutam *prædominantiam* motuum. Per *æquilibrium*, ut in bilancibus, quæ stant, si æqua sint pondera. Per *prædominantiam*, ut in hydriis perforatis, ubi quiescit aqua, et detinetur a decasu per *prædominantiam* motus *nexus*. Notandum tamen est (ut diximus) quatenus nitantur motus illi succumbentes. Etenim si quis per luctam detineatur extensus in terra, brachiis et tibiis vinctis, aut aliter detentis; atque ille tamen totis viribus resurgere nitatur; non est minor nixus, licet non proficiat. Hujus autem rei conditio (scilicet utrum per *prædominantiam* motus succumbens quasi annihiletur; an potius continuetur nixus, licet non conspiciatur) quæ latet in conflictibus, apparebit fortasse in concurrentiis. Exempli gratia; fiat experimentum in sclopetis, utrum sclopetus, pro tanto spatio, quo emittat pilam in linea directa, sive (ut vulgo loquuntur) in puncto blanco, debiliorem edat percussionem ejaculando in supra, ubi motus ictus est simplex, quam desuper, ubi motus gravitatis concurrit cum ictu.

Etiam canones *prædominantiarum*, qui ocurrunt, colligendi sunt. Veluti, quod quo communius est bonum quod appetitur, eo motus est fortior: ut motus nexus, qui respicit communionem universi, fortior est motu gravitatis, qui respicit communionem densorum. Etiam, quod appetitus, qui sunt boni privati, non prævalent plerumque contra appetitus boni magis publici; nisi in parvis quantis: quæ utinam obtinerent in civilibus.

XLIX.

Inter *prærogativas instantiarum* ponemus loco vicesimo quinto *instantias innuentes*; eas scilicet, quæ commoda hominum innuunt aut designant. Etenim ipsum *posse* et ipsum *scire*, naturam humanam amplificant, non beant. Itaque decerpenda sunt ex universitate rerum ea quæ ad usus vitæ maxime faciunt. Verum de iis erit magis proprius dicendi locus, cum *deductiones ad praxim* tractabimus. Quinetiam in ipso opere *interpretationis* circa singula subjecta, locum semper *chartæ humanæ*, sive *chartæ optativæ* assignamus: etenim et quærere et optare non inepte, pars scientiæ est.

L.

Inter *prærogativas instantiarum* ponemus loco vicesimo sexto *instantias polychrestas*. Eæ sunt, quæ pertinent ad vnria, et sæpius occurrunt; ideoque operæ et novis probationibus haud parum parcunt. Atque de instrumentis ipsis atque ingeniationibus proprius erit dicendi locus, cum deductiones ad praxim et experimentandi modos tractabimus. Quin etiam quæ adhuc cognita sunt, et in usum venerunt, in historiis particularibus singularum artium describentur. In præsenti autem subjungemus quædam catholica circa ea pro exemplis tantum *polychresti*.

Operatur igitur homo super corpora naturalia (præter ipsam admotionem et amotionem corporum simplicem) septem præcipue modis: nempe, vel per exclusionem eorum quæ impediunt et disturbant: vel per compressiones, extensiones, agitationes, et hujusmodi: vel per calorem et frigus: vel per moram in loco convenienti: vel per frænum et regimen motus: vel per consensus speciales: vel per alternationem tempestivam et debitam, atque seriem et successionem horum omnium; aut saltem nonnullorum ex illis.

Ad primum igitur quod attinet; aër communis, qui undique præsto est et se ingerit, atque radii cœlestium, multum turbant: quæ itaque ad illorum exclusionem faciunt, merito haberi possint pro polychrestis. Huc igitur pertinent materies et crassities vasorum, in quibus corpora ad operationem præparata reponuntur. Similiter modi accurati obturationis vasorum, per consolidationem et *lutum sapientiæ*, ut loquuntur chemici. Etiam clausura per liquores in existimus utilissima res est: ut cum infundunt oleum super vinum aut succos herbarum; quod expandendo se in summitate instar operculi, optime ea conservat illæsa ab aëre. Neque pulverea res malæ sunt; qui licet contineant aërem permistum, tamen vim aëris coacervati et circumfusi arcent; ut fit in conservatione uvarum et fructuum intra arenam et farinam. Etiam cera, mel, pix, et hujusmodi tenacia, recte obducuntur ad clausuram perfectiorem, et ad summovendum aërem et cœlestia. Etiam nos experimentum quandoque fecimus, ponendo vas, necnon aliqua alia corpora, intra argentum vivum, quod omnium longe densissimum est ex iis quæ circumfundi possunt. Quinetiam specus et cavernæ subterraneæ magni usus sunt ad prohibendum insolationem et aërem istum apertum prædatorium; qualibus utuntur Germani septentrionales pro granariis. Necnon repositio corporum in fundo aquarum ad hoc spectat: ut memini me quippiam audisse de utribus vini demissis in profundum puteum, ad infrigidationem scilicet; sed casu et per neglectum ac oblivionem ibidem remanentibus per multos annos, et deinde extractis; unde vinum factum est, non solum, non vapidum, aut emortuum, sed multo magis nobile ad gustum; per commixtionem partium suarum (ut videtur) magis exquisitam. Quod si postulet res, ut corpora demittantur ad fundum æquarum, veluti intra fluvios aut mare, neque tamen aquas tangant, nec in vasibus obturatis concludantur, sed aëre tantum circumdentur; bonus est usus vasis illius, quod adhibitum est nonnunquam ad operandum subter aquis supra navigia demersa, ut urinatores diutius manere possint sub aquis, et per vices ad tempus respirare. Illud hujusmodi erat: conficiebatur dolium ex metallo concavum, quod demittebatur æquabiliter ad superficiem aquæ, atque sic deportabat totum aërem, qui continebatur in dolio, secum in fundum maris. Stabat autem super pedes tres (instar tripodis) qui longitudinis erant aliquanto minoris statura hominis: ita ut urinator posset, cum anhelitus defiecret, immittere caput in cavum dolii, et respirare, et deinde opus continuare. Atque audivimus inventam esse jam machinam aliquam naviculæ aut scaphæ, quæ homines subter aquis vehere possit ad spatia nonnulla. Verum sub tali vase, quale modo diximus, corpora quævis facile suspendi possint; cujus causa hoc experimentum adduximus.

Est et alius usus diligentis et perfectæ clausuræ corporum: nempe, non solum ut prohibeatur aditus aëris per exterius (de quo jam dictum est) verum etiam ut cohibeatur exitus spiritus corporis, super quod fit operatio per interius. Necesse est enim ut operanti circa corpora naturalia constet de summis suis: viz. quod nihil expirarit aut effluxerit. Fiunt enim profundæ alterationes in corporibus, quando, natura prohibente annihilationem, ars prohibeat etiam deperditionem aut evolationem alicujus partis. Atque hac de re invaluit opinio falsa (quæ si vera esset, de ista conservatione summæ certæ absque diminutione esset fere desperandum) viz. spiritus corporum, et aërem majori gradu caloris attenuatum, nullis vasorum claustris posse contineri, quin per poros vasorum subtiliores evolent. Atque in hanc opinionem adducti sunt homines per vulgata illa experimenta, poculi inversi super aquam cum candela aut charta inflammata; ex quo fit ut aqua sursum attrahatur: atque similiter ventosarum, quæ super flammam calefactæ trahunt carnes. Existimant enim in utroque experimento aërem attenuatum emitti, et inde *quantum* ipsius minui; ideoque aquam, aut carnes per nexum succedere. Quod falsissimum est. Aër enim non *quanta* diminuitur, sed spatio contra-

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hitur; neque incipit motus iste successionis aquæ, antequam fiat extinctio flammæ, aut refrigeratio aëris: adeo ut medici, quo fortius attrahant ventosæ, ponant spongias frigidas aqua madefactas super ventosas. Itaque non est, cur homines multum sibi metuant de facili exitu aëris aut spirituum. Licet enim verum sit, etiam solidissima corpora habere suos poros, tamen ægre patitur aër aut spiritus comminutionem sui ad tantam subtilitatem; quemadmodum et aqua exire recusat per rimam minusculam.

De secundo vero modo ex septem prædictis illud imprimis notandum est, valere certe compressiones et hujusmodi violentias ad motum localem, atque alia id genus, potentissime; ut in machinis et missilibus: etiam ad destructionem corporis organici, atque earum virtutum, quæ consistunt plane in motu. Omnis enim vita, immo etiam omnis flamma et ignitio, destruitur per compressiones; ut et omnis machina corrumpitur et confunditur per easdem. Etiam ad destructionem virtutum, quæ consistunt in posituris, et dissimilaritate partium paulo crassiore; ut in coloribus (neque enim idem color floris integri et contusi, neque succini integri et pulverizati). Etiam in saporibus (neque enim idem sapor pyri immaturi et ejusdem compressi ac subacti; nam manifesto dulcedinem majorem concipit). Verum ad transformationes et alterationes nobiliores corporum similarium non multum valent istæ violentiæ; quia corpora per eas non acquirunt consistentiam aliquam novam constantem et quiescentem, sed transitoriam et, nitentem semper ad restitutionem et liberationem sui. Attamen non abs re foret hujus rei faeere experimenta aliqua diligentiora; ad hoc scilicet, utrum condensatio corporis bene similaris (qualia sunt aër, aqua, oleum, et hujusmodi) aut rarefactio, similiter per violentiam indita, possint fieri constantes et fixæ, et quasi mutatæ in naturam. Id quod primo experiendum per moram simplieem; deinde per auxilia et eonsensus. Atque illud nobis in promptu fuisset (si modo in mentem venisset) eum aquam (de qua alibi) per malleationes et pressoria condensavimus, antequam erumperet. Debuerimus enim sphæram complanatam per aliquot dies sibi permississe, et tum demum aquam extraxisse; ut ficret experimentum, utrum statim impletura fuisset talem dimensionem, qualem habebat ante condensationem. Quod si non feeisset aut statim, aut eerte paulo post; constans videliect facta videri potuisset ista condensatio: sin minus; apparuisset factam fuisse restitutionem, et compressionem fuisse transitoriam. Etiam simile quiddam faciendum erat circa extensionem aëris in ovis vitreis. Etenim debuerat fieri, post exsuctionem fortem, subita et firma obturatio; deinde debuerant ova illa manere ita obturata per nonnullos dies; et tum demum experiendum fuisset, utrum aperto foramine attractus fuisset aër cum sibilo, aut etiam attracta fuisset tanta quantitas aquæ post immersionem, quanta fuisset ab initio, si nulla adhibita fuisset mora. Probabile enim aut saltem dignum probatione est, hæe fieri potuisse et posse; propterea quod in corporibus paulo magis dissimilaribus similia efficiat mora temporis. Etenim baculum per compressionem eurvatum post aliquod tempus non resilit: neque id imputandum est alicui deperditioni ex quanto ligni per moram; nam idem fiet in lamina ferri (si augeatur mora) quæ non est expirabilis. Quod si non succedat experimentum per moram simplieem; tamen non desercndum est negotium, sed auxilia alia adhibenda. Non enim parum lucri fit, si per violentias indi possint corporibus naturæ fixæ et eonstantes. Hac enim ratione aër possit verti in aquam per condensationes: et complura alia id genus. Dominus enim est homo motuum violentorum magis quam eæterorum.

At tertius ex septem modis refertur ad magnum illud organum, tam naturæ quam artis, quoad operandum; videlicet calidum et frigidum. Atque in hac parte claudicat plane potentia humana, tanquam ex uno pede. Habemus enim calorem ignis, qui caloribus solis (prout ad nos deferuntur) et caloribus animalium, quasi infinitis partibus potentior est et intensior. At deest frigus, nisi quale per tempestates hiemales, aut per cavernas, aut per eirenmdationes nivis et glaciei, haberi potest: quod in comparatione æquari potest cum calore fortasse solis meridiano, in regione aliqua ex torridis, nucto insuper per reverberationes montium et parietum: nam hujusmodi, utique tam calores quam frigora, ab animalibus ad tempus exiguum tolerari possunt. Nihili autem sunt fere præ ealore fornacis ardentis, aut alicujus frigoris quod huie gradui respondeat. Itaque omnia hic apud nos vergunt ad rarefaetionem et desicentionem, et consumptionem; nihil fere ad condensationem et intenerationem, nisi per misturas et modos quasi spurios. Quare instantiæ frigoris omni diligentia sunt conquirendæ: quales videntur inveniri in expositione corporum super turres quando gelat acriter: in cavernis subterrancis: circumdationibus nivis et glacici in locis profundioribus, et ad hoc excavatis: demissione corporum in puteos: sepulturis corporum in argento vivo et metallis: immersione corporum in aquis, quæ vertunt ligna in lapides: defossione corporum in terra (qualis fertur apud Chinenscs esse confectio poreellanæ, ubi massæ ad hoc factæ dicuntur manere intra terram per quadraginta aut quinquaginta annos, et transmitti ad hæredes, tanquam mineræ quædam artificiales) et hujusmodi. Quinetiam quæ interveniunt in natura condensationes, factæ per frigora, similiter sunt investigandæ; ut causis eorum eognitis, transferri possint in artes. Quales cernuntur in exsudatione marmoris et lapidum; in rorationibus super vitra per interius fenestrarum, sub auroram, post gelu noctis; in originibus et collectionibus vaporum in aquas sub terra, unde sæpe scaturiunt fontes; et quæcunque sunt hujus generis.

Inveninntur autem, præter illa, quæ sunt frigida ad tactum, quædam alia potestate frigida, quæ etiam condensant; veruntamen operari videntur super corpora animalium tantum, et vix ultra. Hujus generis se ostendunt multa in medicinis et emplastris. Alia autem condensant earnes et partes tangibiles; qualia sunt medicamenta astringentia, atque etiam inspissantia: alia condensant spiritus, id quod maxime cernitur in soporiferis. Duplex autem est modus condensationis spirituum per medicamenta soporifera, sive provocantia somnum: alter per

sedationem motus; alter per fugam spirituum. Etenim viola, rosa sicca, lactuca, et hujusmodi benedicta sive benigna, per vapores suos amicos et moderate refrigerantes, invitant spiritus ut se uniant, et ipsorum acrem et inquietum motum compescunt. Etiam aqua rosacea, apposita ad nares in deliquiis animæ, spiritus resolutos et nimium relaxatos se recipere facit, et tanquam alit: at opiata et eorum affinia spiritus plane fugant, ex qualitate sua maligna et inimica. Itaque si applicentur parti exteriori, statim aufugiunt spiritus ab illa parte, nec amplius libenter influunt: sin sumantur interius, vapores eorum, ascendentes ad caput, spiritus in ventriculis cerebri contentos undequaque fugant; cumque se retrahant spiritus, neque in aliam partem effugere possint, per consequens coëunt et condensantur; et quandoque plane extinguuntur et suffocantur: licet rursus eadem opiata moderate sumpta, per accidens secundarium (videlicet condensationem illam quæ a coitione succedit) confortent spiritus, eosque reddant magis robustos, et retundant eorum inutiles et incensivos motus: ex quo ad curas morborum et vitæ prolongationem haud parum conferant.

Etiam preparationes corporum ad excipiendum frigus non sunt omittendæ; veluti quod aqua parum tepida facilius congelacietur, quam omnino frigida et hujusmodi.

Præterea, quia natura frigus tam parce suppeditat, faciendum est quemadmodum pharmacopolæ solent; qui, quando simplex aliquod haberi non possit, capiunt succedaneum ejus, et *quid* pro *quo*, ut vocant: veluti lignum aloës pro xylobalsamo, cassiam pro cinnamomo. Simili modo diligenter circumspiciendum est, si quæ sint succedanea frigoris; videlicet quibus modis fieri possint condensationes in corporibus aliter quam per frigus, quod illas efficit, ut opus suum proprium. Illæ autem condensationes videntur intra quaternum numerum (quantum adhuc liquet) contineri. Quarum prima videtur fieri per contrusionem simpliciem; quæ parum potest ad densitatem constantem (resiliunt enim corpora) sed nihilominus forte res auxiliaris esse queat. Secunda fit per contraetionem partium crassiorum in corpore aliquo post evolationem aut exitum partium tenuiorum, ut fit in indurationibus per ignem, et repetitis extinctionibus metallorum, et similibus. Tertia fit per coitionem partium homogenearum, quæ sunt maxime solidæ in corpore aliquo, atque antea fuerant distractæ, et cum minus solidis commixtæ: veluti in restitutione mercurii sublimati, qui in pulvere longe majus occupat spatium, quam mercurius simplex; et similiter in omni repurgatione metallorum a scoriis suis. Quarta fit per consensus, admovendo quæ ex vi corporum occulta condensant; qui consensus adhuc raro se ostendunt, quod mirum minime est, quoniam antequam inventio succedat formarum et schematismorum, de inquisitione consensuum non multum sperandum est. Certe quoad corpora animalium, dubium non est, quin sint complures medicinæ, tam interius quam exterius sumptæ, quæ condensant, tanquam per consensum, ut paulo ante diximus. Sed in inanimatis rara est hujusmodi operatio. Percrebuit sane, tam scriptis quam fama, narratio de arbore in una ex insulis sive Terceris sive Canariis (neque enim bene memini) quæ perpetuo stillat; adeo ut inhabitantibus nonnullam commoditatem aquæ præbeat. Paracelsus autem ait, herbam vocatam Rorem solis meridie et fervente sole rore imbi, cum aliæ herbæ undique sint siccæ: at nos utramque narrationem fabulosam esse existimamus. Omnino autem illæ instantiæ nobilissimi forent usus, et introspectione dignissimæ, si essent veræ. Etiam rores illos mellitos et instar mannæ, qui super foliis quereus inveniuntur mense Maio, non existimamus fieri et densari a consensu aliquo sive a proprietate folii quereus, sed cum super aliis foliis pariter cadant, contineri scilicet et durare in foliis quereus; quia sunt bene unita, nec spongiosa, ut plurima ex aliis.

Calorem vero quod attinet; copia et potestas nimirum homini abunde adest; observatio autem et inquisitio defecit in nonnullis, iisque maxime necessariis; uteunque Spagirici se venditent. Etenim caloris intensioris opificia exquiruntur et conspiciuntur; remissioris vero, quæ maxime in vias naturæ incidunt, non tentantur, ideoque latent. Itaque videmus per vulcanos istos, qui in pretio sunt, spiritus corporum magnopere exaltari, ut in aquis fortibus, et nonnullis aliis oleis chemieis, partes tangibiles indurari, et, emisso volatili, aliquando figi; partes homogeneas separari; etiam corpora heterogenea grosso modo incorporari et commiseeri; maxime autem compages corporum compositorum et subtiliores schematismos destrui et confundi. Debuerant autem opificia caloris lenioris tentari et exquiri; unde subtiliores misturæ et schematismi ordinati gigni possint et ednei, ad exemplum naturæ, et imitationem operum solis: quemadmodum in aphorismo de instantiis *foederis* quædam adumbravimus. Opificia enim natura transiguntur per longe minores portiones, et posituras magis exquisitas et varias, quam opificia ignis, prout nunc adhibetur. Tum vero videatur homo revera auetus potestate, si per calores et potentias artificiales opera naturæ possint specie repræsentari, virtute perfici, copia variari: quibus addere oportet accelerationem temporis. Nam rubigo ferri longo tempore procedit, at versio in crocum martis subito; et similiter de ærugine et ecrussa. Crystallum longo tempore confieitur, vitrum subito conflatur. Lapides longo tempore concreseunt, lateres subito coquuntur, etc. Interim (quod nupe agitur) omnes diversitates caloris eum effeetibus suis respective diligenter et industrie undique sunt colligendæ et exquirendæ: ecælestium, per radios suos direetos, reflexos, refractos, et unitos in speculis comburentibus: fulguris, flammæ, ignis earbonum; ignis ex diversis materiis; ignis aperti, conclusi, angustati et inundantis, denique per diversas fabricas fornacium qualifieati; ignis flatu exciti, quieti et non exeiti; ignis ad majorem aut minorem distantiam remoti; ignis per varia media permeantis; calorum humidorum, ut balnei Mariæ, fimi, caloris animalium per exterius, caloris animalium per interius, fœni conclusi; calorum aridorum, cineris, calcis, arenæ tepidæ; denique calorum cujusvis generis cum gradibus eorum.

Præcipue vero tentanda est inquisitio et inventio effeetuum et opificiorum caloris accedentis et recedentis graduatim, et ordinatim, et periodice, et per

debita spatia, et moras. Ista enim inæqualitas ordinata revera filia cœli est, et generationis mater: neque a calore aut vehementi, aut præcipiti, aut subsultorio, aliquid magni expectandum est. Etenim et in vegetabilibus hoc manifestissimum est; atque etiam in uteris animalium magna est caloris inæqualitas, ex motu, somno, alimentationibus et passionibus fœmellarum, quæ uterum gestant; denique in ipsis matricibus terræ, iis nimirum, in quibus metalla et fossilia efformantur, locum habet et viget ista inæqualitas. Quo magis notanda est inscitia aliquorum alchemistarum ex reformatis, qui per calores æquabiles lampadum, et hujusmodi, perpetuo tenore ardentium, se voti compotes fore existimarunt. Atque de opificiis et effectibus caloris hæc dicta sint. Neque vero tempestivum est illa penitus scrutari, antequam rerum formæ et corporum schematismi ulterius investigati fuerint, et in lucem prodierint. Tum enim quærenda, et adoperanda, et aptanda sunt instrumenta, quando de exemplaribus constiterit.

Quartus modus operandi est per moram, quæ certe et promus et condus naturæ est, et quædam dispensatrix. Moram appellamus, cum corpus aliquod sibi permittitur ad tempus notabile, munitum interim et defensum ab aliqua vi externa. Tum enim motus intestini se produnt et perficiunt, cum motus extranei et adventitii cessant. Opera autem ætatis sunt longe subtiliora, quam ignis. Neque enim possit fieri talis clarificatio vini per ignem, qualis fit per moram; neque etiam incinerationes per ignem tam sunt exquisitæ, quam resolutiones et consumptiones per secula. Incorporationes etiam et mistiones subitæ et præcipitatæ per ignem, longe inferiores sunt illis, quæ fiunt per moram. At dissimulares et varii schematismi, quos corpora per moras tentant (quales sunt putredines) per ignem aut calorem vehementiorem destruuntur. Illud interim non abs re fuerit notare; motus corporum penitus conclusorum habere nonnihil ex violento. Incarceratio enim illa impedit motus spontaneos corporis. Itaque mora in vase aperto plus facit ad separationes; in vase penitus clauso ad commistiones; in vase nonnihil clauso, sed subintrante aëre, ad putrefactiones; utcunque de opificiis et effectibus moræ undique sunt diligenter conquirendæ instantiæ.

At regimen motus (quod est quintus ex modis operandi) non parum valet. Regimen autem motus vocamus, cum corpus aliud occurrens, corporis alterius motum spontaneum impedit, repellit, admittit, dirigit. Hoc vero plerumque in figuris et situ vasorum consistit. Etenim conus erectus juvat ad condensationem vaporum in alembicis; at conus inversus juvat ad defæcationem sacchari in vasis resupinatis. Aliquando autem sinuatio requiritur, et angustatio, et dilatatio per vices, et hujusmodi. Etiam omnis percolatio huc spectat; scilicet cum corpus occurrens, uni parti corporis alterius viam aperit, alteri obstruit. Neque semper percolatio aut aliud regimen motus fit per extra; sed etiam per corpus in corpore; ut cum lapilli immittuntur in aquas ad colligendam limositatem ipsarum; syrupi clarificantur cum albuminibus ovorum, ut crassiores partes adhærescant, et postea separari possint. Etiam huic regimini motus satis levi er et inscite attribuit Telesius figuras animalium, ob rivulos scilicet et loculos matricis. Debuerat autem notare similem efformationem intestis ovorum, ubi non sunt rugæ aut inæqualitas: at verum est regimen motus efformationes perficere in modulis et proplasticis.

Operatinnes vero per consensus aut fugas (qui sextus modus est) latent sæpenumero in profundo. Istæ enim (quas vocant) proprietates occultæ et specificæ, et sympathiæ, et antipathiæ sunt magna ex parte corruptelæ philosophiæ. Neque de consensibus rerum inveniendis multum sperandum est ante inventionem formarum et schematismorum simplicium. Consensus enim nil aliud est quam symmetria formarum et schematismorum ad invicem.

Atqui majores et magis catholici rerum consensus non prorsus obscuri sunt. Itaque ab iis ordiendum. Eorum prima et summa diversitas ea est; ut quædam corpora copia et raritate materiæ admodum discrepent, schematismis consentiant; alia contra, copia, et raritate materiæ consentiant, schematismis discrepent. Nam non male notatum est a chemicis in principiorum suorum triade, sulphur et mercurium quasi per universitatem rerum permeare (nam de sale inepta ratio est, sed introducta, ut possit comprehendere corpora terrea, sicca, et fixa). At certe in illis duobus videtur consensus quidam naturæ ex maxime catholicis conspici. Etenim consentiunt sulphur; oleum, et exhalatio pinguis; flamma, et fortasse corpus stellæ: ex altera parte consentiunt mercurius; aqua et vapores aquei; aër; et fortasse æther purus et interstellaris. Attamen istæ quaterniones geminæ, sive magnæ rerum tribus (utraque intra ordines suos) copia materiæ atque densitate immensum differunt, sed schematismo valde conveniunt; ut in plurimis se produnt. At contra metalla diversa copia et densitate multum conveniunt (præsertim respectu vegatibilium, etc.) sed schematismo multifariam differunt; et similiter vegetabilia et animalia diversa schematismis quasi infinitis variantur: sed intra copiam materiæ, sive densitatem paucorum graduum continentur.

Sequitur consensus maxime post priorem catholicus, videlicet corporum principalium et fomitum suorum; videlicet menstruorum et alimentorum. Itaque exquirendum, sub quibus climatibus, et in qua tellure, et ad quam profunditatem, metalla singula generentur; et similiter de gemmis, sive ex rupibus, sive inter mineras natis: In qua gleba terræ, arbores singulæ, et frutices, et herbæ potissimum proveniant, et tanquam gaudeant; et iusimul quæ impinguationes, sive per stercorationes cujuscunque generis, sive per cretam, arenam maris, cineres, etc maxime juvent; et quæ sint ex his pro varietate glebarum magis aptæ et auxiliares. Etiam insitio et inoculatio arborum et plantarum, earumque ratio; quæ scilicet plantæ super quas felicius inserantur, etc. multum pendet de consensu. In qua parte non injucundum foret experimentum, quod noviter audivimus esse tentatum de insitione arborum sylvestrium (quæ hucusque in arboribus hortensibus fieri consuevit) unde folia et glandes majorem in modum amplificantur, et arbores fiunt magis umbrosæ. Similiter alimenta animalium respective notanda sunt in

genere et cum negativis. Neque enim carnivora sustinet herbis nutriri; unde etiam ordo Folitanorum (licet voluntas humana plus possit, quam animantium cæterorum, super corpus suum) post experientiam factam (ut aiunt) tanquam ab humana natura non tolerabilis, fere evanuit. Etiam materiæ diversæ putrefactionum, unde animalcula generantur, notandæ sunt.

Atque consensus corporum principalium erga subordinata sua (tales enim ii possint censeri, quos notavimus) satis in aperto sunt. Quibus addi possunt sensuum consensus erga objecta sua. Qui consensus eum manifestissimi sint; bene notati, et acriter excussi, etiam aliis consensibus, qui latent, magnam præbere possint lucem.

At interiores corporum consensus et fugæ, sive amicitiæ et lites (tædet enim nos fere vocabulorum sympathiæ et antipathiæ, propter superstitiones et inania) aut falso ascriptæ, aut fabulis conspersæ, aut per neglectum, raræ admodum sunt. Etenim si quis asserat, inter vineam et brassicam esse dissidium, quia juxta sata minus læte proveniunt; præsto ratio est, quod utraque planta succulenta sit, et deprædatrix, unde altera alteram defraudat. Si quis asserat esse consensum et amicitiam inter segetes et cyaneum, aut papaver sylvestre, quia herbæ illæ fere non proveniunt nisi in arvis cultis: debuit is potius asserere, dissidium esse inter ea, quia papaver et cyaneus emittuntur et ereantur ex tali succo terræ, qualem segetes reliquerint et repudiaverint; adeo ut satio segetum terram præparet ad eorum proventum. Atque hujusmodi falsarum ascriptionum magnus est numerus. Quoad fabulas vero, illæ omnino sunt exterminandæ. Restat tenuis certa copia eorum consensuum, qui certo probati sunt experimento; quales sunt magnetis et ferri, atque auri et argenti vivi, et similium. At in experimentis chemicis circa metalla inveniuntur et alii nonnulli observatione digni. Maxima vero frequentia eorum (ut in tanta paucitate) invenitur in medicinis nonnullis, quæ ex proprietatibus suis occultis (quas vocant) et specificis, respiciunt aut membra, aut humores, aut morbos, aut quandoque naturas individuas. Neque omittendi sunt consensus inter motus et affectus lunæ, et passiones corporum inferiorum, prout ex experimentis agriculturæ, nauticæ, et medicinæ, aut alias cum delectu severo et sincero colligi et recipi possint. Verum instantiæ universæ consensuum secretiorum quo magis sunt infrequentes, eo majori eum diligentia sunt inquirendæ, per traditiones, et narrationes fidas et probas; modo hoc fiat absque ulla levitate aut credulitate, sed fide anxia et quasi dubitabunda. Restat consensus corporum modo operandi, tanquam inartificialis, sed usu polychrestus, qui nullo modo omittendus est, sed sedula observatione investigandus. Is est coitio sive unio corporum proclivis, aut difficilis, per compositionem sive appositionem simplicem. Etenim corpora nonnulla facile et libenter commiscentur et incorporantur: alia autem ægre et perverse. Veluti pulveres melius incorporantur cum aquis; calces et cineres cum oleis; et sic de similibus. Neque tantum sunt colligendæ instantiæ *propensionis*, aut *aversionis* corporum erga misturam, sed etiam collocationis partium, et distributionis, et digestionis, postquam commixta sint; denique et prædominantiæ post misturam transactam.

Superest ultimo loco ex modis septem operandi septimus et postremus; operatio scilicet per alternationem, et vicissitudines priorum sex: de quo antequam in singulos illos paulo altius fuerit inquisitum, tempestivum non foret exempla proponere. Series autem sive catena hujusmodi alterationis, prout ad singula effecta accommodari possit, res est et cognitu maxime difficilis, et ad opera maxime valida. Summa autem detinet et occupat homines impatientia hujusmodi, tam inquisitionis quam praxeos; cum tamen sit instar fili labyrinthi, quoad opera majora. Atque hæc suffeciant ad exemplum polyebresti.

LI.

Inter *prærogativas instantiarum* ponemus loco vicesimo septimo atque ultimo *instantias magicas*. Hoc nomine illas appellamus, in quibus materia, aut efficiens, tenuis aut parva est, pro magnitudine operis et effectus qui sequitur: adeo ut etiamsi fuerint vulgares, tamen sint instar miraculi; aliæ primo intuitu, aliæ etiam attentius contemplanti. Has vero natura ex sese subministrat paree; quid vero factura sit sinu exousso, et post inventionem formarum, et processuum, et schematismorum, futuris temporibus apparebit. At ista effecta magica (quantum adhuc conjicimus) fiunt tribus modis: Aut per multiplicationem sui; ut in igne, et venenis, quæ vocant specifica; necnon in motibus, qui transeunt et fortificantur de rota in rotam; aut per excitationem sive invitationem in altero, ut in magnete, qui excit acus innumeras, virtute nullatenus deperdita aut diminuta; aut in fermento, et hujusmodi: aut per anteversionem motus, ut dictum est de pulvere pyrio, et bombardis, et cuniculis: quorum priores duo modi indagationem consensuum requirunt: tertius, mensuræ motuum. Utrum vero sit aliquis modus mutandi corpora per minima (ut vocant) et transponendi subtiliores materiæ schematismos (id quod ad omnimodas corporum transformationes pertinet: ut ars brevi tempore illud faeere possit, quod natura per multos ambages molitur) de eo nulla hactenus nobis constant indicia. Quemadmodum autem in solidis et veris aspiramus ad ultima et summa; ita vanu et tumida perpetuo odimus, et quantum in nobis est profligamus.

LII.

Atque de dignitatibus sive *prærogativas instantiarum* hæc dictu sint. Illud vero monendum, nos in hoc nostro *organo* tractare logicam, non philosophiam. Sed cum logica nostra doceat intellectum, et erodiat ad hoc, ut non tenuibus mentis quasi claviculis rerum abstracta captet et prenset (ut logica vulgaris); sed naturam revera perseeet; et corporum virtutes et actus, eorumque leges in materia determinatas inveniat; ita ut non solum ex natura mentis, sed ex natura rerum quoque hæc scientia emanet; mirum non est, si ubique naturalibus contemplationibus et experimentis, ad exempla artis nostræ, conspersa fuerit et illustrata. Sunt autem (ut ex iis, quæ dicta sunt, patet) *prærogativæ instantiarum* numero viginti septem; Nominibus: *instan-*

tiæ solitariæ : instantiæ migrantes : instantiæ ostensivæ : instantiæ clandestinæ : instantiæ constitutivæ : instantiæ conformes : instantiæ monodicæ : instantiæ deviantes : instantiæ limitaneæ : instantiæ potestatis : instantiæ comitatus et hostiles : instantiæ subjunctivæ : instantiæ fœderis : instantiæ crucis : instantiæ divortii : instantiæ januæ : instantiæ citantes : instantiæ viæ : instantiæ supplementi : instantiæ persecantes : instantiæ virgæ : instantiæ curriculi : doses naturæ : instantiæ luctæ : instantiæ innuentes : instantiæ polychrestæ : instantiæ magicæ. Usus autem harum *instantiarum*, in quo instantias vulgares excellunt, versatur in genere, aut circa partem informativam, aut circa operativam, aut circa utramque. Atque quoad informativam, juvant illæ aut sensum aut intellectum : Sensum, ut quinque *instantiæ lampadis :* Intellectum : aut accelerando exclusivam formæ, ut *solitariæ ;* aut angustando et propius indicando affirmativam formæ, ut *migrantes, ostensivæ, comitatus,* cum *subjunctivis :* aut erigendo intellectum et ducendo ad genera et naturas communes : idque aut immediate, ut *clandestinæ, monodicæ, fœderis :* aut gradu proximo, ut *constitutivæ :* aut gradu infimo, ut *conformes :* aut rectificaodo intellectum a consuetis, ut *deviantes :* aut ducendo ad formam magnam, sive fabricam universi, ut *limitaneæ :* aut cavendo de formis et causis falsis, ut *crucis* et *divortii.* Quod vero ad operativam attinet ; illæ practicam aut designant, aut mensurant, aut sublevant. Designant aut ostendendo a quibus incipiendum, ne actum agamus, ut *instantiæ potestatis :* aut ad quid aspirandum, si detur facultas, ut *innuentes.* Mensurant quatuor illæ *mathematicæ :* sublevant *polychrestæ* et *magicæ.*

Rursus ex istis *instantiis* viginti septem, nonnullarum (ut superius diximus de aliquibus) facienda est collectio jam ab initio, nec expectanda particularis inquisitio naturarum. Cujus generia sunt *instantiæ conformes, monodicæ, deviantes, limitaneæ, potestatis, januæ, innuentes, polychrestæ, magicæ.* Hæc enim aut auxiliantur et medentur intellectui et sensui ; aut instruunt praxin, in genere. Reliquæ tum demum conquirendæ sunt, cum conficiemus *tabulas camparentiæ* ad opus interpretis circa aliquam naturam particularem. Sunt enim *instantiæ prærogativis* istis insignitæ et donatæ, onimæ instar inter vulgares instantias comparentiæ ; et, ut ab initio diximus, paucæ illarum sunt vice multarum. Quocirca cum *tabulas* conficimus, illæ omni studio sunt investigandæ, et in *tabulas* referendæ. Erit etiam earum mentio necessaria in *iis* quæ sequuntur. Præponendus itaque erat earum tractatus.

Nunc vero ad *adminicula* et *rectificationes inductionis,* et deinceps ad *concreta,* et *latentes processus,* et *latentes schematismos,* et reliqua, quæ *aphorismo* XXI. ordine proposuimus, pergendum ; ut tandem (tanquam curatores probi et fideles) tradamus hominibus fortunas suas, emancipato intellectu, et facto tanquam majore ; unde necesse est sequi emendatiooem status hominis, et ampliationem potestatis ejus super naturam. Homo enim per lapsum et de statu innocentiæ decidit, et de regno in creaturas. Utraque autem res etiam in hac vita nonnulla ex parte reparari potest ; prior per religionem et fidem, posterior per artes et scientias. Neque enim per maledictionem facta est creatura prorsus et ad extremum rebellis : Sed in virtute illius diplomatis, " In sudore vultus comedes panem tuum," per labores varios (non per disputationes certe, aut per otiosas ceremonias magicas) tandem et aliqua ex parte ad panem homini præbendum, id est, ad usus vitæ humanæ subigitur.

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INSTAURATIONIS MAGNÆ

PARS TERTIA.

ILLUSTRISSIMO ET EXCELLENTISSIMO

PRINCIPI CAROLO,

SERENISSIMI REGIS JACOBI FILIO ET HÆREDI.

ILLUSTRISSIME ET EXCELLENTISSIME PRINCEPS,

PRIMITIAS *Historiæ* nostræ *naturalis* Celsitudini tuæ humillime offero: rem mole perpusillam, veluti granum sinapis; sed tamen pignus eorum, quæ, Deo volente, sequentur. Obstrinximus enim nos ipsos, tanquam voto, singulis nos mensibus, ad quos Dei bonitas (cujus agitur gloria tanquam in cantico novo) vitam nostram produxerit, unam, aut plures ejus partes, prout fuerint magis aut minus arduæ, aut copiosæ, confecturos et edituros. Moti etiam fortasse erunt alii, nostro exemplo, ad similem industriam, præsertim postquam penitus perspexerint, quid agatur. Nam in Historia naturali bona, et bene instituta, claves sunt et scientiarum et operum. Deus Celsitudinem tuam diu servet incolumem.

CELSITUDINIS TUÆ

Servus humilis et devotus,

FR. ST. ALBAN.

PARASCEVE AD

HISTORIAM NATURALEM ET EXPERIMENTALEM:

SIVE

DESCRIPTIO HISTORIÆ NATURALIS ET EXPERIMENTALIS,

QUALIS SUFFICIAT, ET SIT IN ORDINE AD BASIN ET FUNDAMENTA PHILOSOPHIÆ VERÆ.

QUOD *Instaurationem* nostram per partes edamus, in eo spectat, ut aliquid extra periculum ponatur. Non absimilis nos movet ratio, ut aliam quandam operis particulam jam in præsenti subjungamus, et cum iis, quæ supra absolvimus, una edamus: ea est descriptio et delineatio Historiæ naturalis et experimentalis, ejus generis, quæ sit in ordine ad condendam philosophiam; et complectatur materiem probam, copiosam, et apte digestam ad opus interpretis, quod succedit. Huic autem rei locus proprius foret, cum ad *parasceras* inquisitionis ordine deventum fuerit. Hoc autem prævertere, nec locum proprium expectare, consultius nobis videtur; quod hujusmodi historia, qualem animo metimur et mox describemus, res perquam magnæ sit molis, nec sine magnis laboribus et sumptibus confici possit; ut quæ multorum opera indigeat, et (ut alibi diximus) opus sit quasi regium. Itaque occurrit illud, non abs re fore experiri, si forte hæc aliquibus aliis curæ esse possint; ita ut dum nos destinata ordine perficiamus, hæc pars, quæ tam multiplex est et onerosa, etiam vivis nobis (si ita divinæ placuerit Majestati) instrui et parari possit, aliis una nobiscum in id sedulo incumbentibus; præsertim cum vires nostræ (si in hoc soli fuerimus) vix tantæ provinciæ sufficere videantur. Etenim quæ ad opus ipsum intellectus pertinent, nos marte nostro fortasse vincemus. At intellectus materialia tam late patent, ut ea (tanquam per procuratores et mercatores) undique conquiri et importari debeant. Accedit etiam illud, quod cœptis nostris vix dignum esse æstimemus, ut in re tali, quæ fere omnium industriæ pateat, nos ipsi tempus teramus. Quod autem caput rei est, ipsi nunc præstabimus: ut ejusmodi historiæ modum et descriptionem, qualis intentioni nostræ satisfaciat, diligenter et exacte proponamus; ne homines non admoniti

aliud agant, et ad exemplum naturalium historiarum, quæ jam in usu sunt, se regant, atque ab instituto nostro multum aberrent. Illud interim quod sæpe diximus, etiam hoc loco præcipue repetendum est: Non si omnia omnium ætatum ingenia coivissent, aut posthac coierint; non si universum genus humanum philosophiæ dedisset operam, aut dederit; et totus terrarum orbis nihil aliud fuisset, aut fuerit, quam academiæ, et collegia, et scholæ virorum doctorum: tamen absque tali, qualem nunc præcipiemus, Historia naturali et experimentali, ullos, qui genere humano digni sint, progressus in philosophia et scientiis fieri potuisse, aut posse: Contra vero, comparata et bene instructa hujusmodi historia, additis experimentis auxiliaribus et luciferis, quæ in ipso interpretationis curriculo occurrent, aut eruenda erunt; paucorum annorum opus futuram esse inquisitionem naturæ et scientiarum omnium. Itaque aut hoc agendum est, aut negotium deserendum. Hoc enim solo et unico modo fundamenta philosophiæ veræ et activæ stabiliri possunt; et simul perspicient homines, tanquam ex profundo somno excitati, quid inter ingenii placita et commenta, ac veram et activam philosophiam intersit; et quid demum sit de natura naturam ipsam consulere.

Primo igitur de hujusmodi historia conficienda præcepta dabimus in genere; deinde particularem ejus figuram hominibus sub oculos ponemus: inserentes interdum non minus *ad quid* inquisitio aptanda et referenda sit, quam *quid* quæri debeat. Scilicet, ut scopus rei, bene intellectus et prævisus, etiam alia hominibus in mentem redigat, quæ a nobis fortasse prætermissa erunt. Historiam autem istam *historiam primam*, sive *historiam matrem* appellare consuevimus.

APHORISMI DE CONFICIENDA HISTORIA PRIMA.

APHORISMUS I.

Natura in triplici statu ponitur, et tanquam regimen subit trinum. Aut enim libera est, et cursu suo ordinario se explicat; aut a pravitatibus et insolentiis materiæ, atque ab impedimentorum violentia de statu suo detruditur; aut ab arte et ministerio humano constringitur et fingitur. Atque primus ille status ad *species* rerum refertur; secundas ad *monstra*; tertius ad *artificialia*. Etenim in artificialibus natura jugum recipit ab imperio hominis; nunquam enim illa facta fuissent absque homine. At per operam et ministerium hominis conspicitur prorsus nova corporum facies, et veluti rerum universitas altera, sive theatrum alterum. Triplex itaque est historia naturalis. Tractat enim aut naturæ *libertatem*, aut *errores*, aut *vincula*; ut non male eam partiri possimus, in *historiam generationum*, *prætergenerationem*, et *artium*; quarum postremam etiam *mechanicam* et *experimentalem* appellare consuevimus. Neque tamen id præcipimus, ut hæc tria separatim tractentur. Quidni enim possint historiæ monstrorum in singulis speciebus cum historia ipsarum specierum conjungi. Etiam artificialia quandoque cum speciebus recte conjunguntur, quandoque melius separantur. Quamobrem e re nata de his consilium capere optimum est. Methodus enim iterationes et prolixitatem gignet, æque ubi nimia est, ac ubi nulla.

II.

Historia naturalis, ut subjecto (quemadmodum diximus) triplex; ita usu duplex est. Adhibetur enim aut propter rerum ipsarum cognitionem, quæ historiæ mandantur; aut tanquam materia prima philosophiæ, atque veræ inductionis supellex sive sylva. Atque posterius hoc nunc agitur; nunc, inquam; neque unquam antehac. Neque enim Aristoteles, aut Theophrastus, aut Dioscorides, aut Caius Plinius, multo minus moderni, hunc finem (de quo loquimur) historiæ naturalis unquam sibi proposuerunt. Atque in hoc plurimum est; ut qui partes scribendi historiam naturalem sibi posthac sumpserint, hoc perpetuo cogitent atque animo agitent: se non lectoris delectationi, non utilitati ipsi, quæ ex narrationibus in præsens capi possit, debere inservire; sed conquirere et comparare rerum copiam et varietatem, quæ veris axiomatibus conficiendis sufficiat. Hoc enim si cogitent, modum hujusmodi historiæ ipsi sibi præscribent. Finis enim regit modum.

III.

Quo autem majoris est hæc res operæ et laboris, eo illam minus onerari superfluis consentaneum est. Tria itaque sunt, de quibus homines sunt plane admonendi, ut in illis parce admodum operam suam collocent: tanquam iis, quæ massam operis in immensum augeant, virtutem parum aut nihil promoveant.

Primo igitur facessant antiquitates, et citationes, aut suffragia auctorum; etiam lites et controversiæ et opiniones discrepantes; omnia denique philologica. Neque enim citetur auctor, nisi in re dubiæ fidei; neque interponatur controversia, nisi in re magni momenti. Quæ vero ad ornamenta orationis, et similitudines, et eloquentiæ thesaurum, et hujusmodi inania spectant, omnino abjiciantur. Etiam quæ recipiuntur omnia, et ipsa proponantur breviter et strictim, ut nihil minus sint quam verba. Nemo enim, qui materialia ad ædificia, vel naves, vel hujusmodi aliquas structuras colligit et reponit, ea (officinarum more) belle collocat et ostentat, ut placeant; sed in hoc tantum sedulus est, ut proba et bona sint, et ut in repositorio spatium minimum occupent. Atque ita prorsus faciendum est.

Secundo, non multum ad rem facit luxuria illa historiarum naturalium in descriptionibus et picturis specierum numerosis, atque earundem varietate curiosa. Hujusmodi enim puerilæ varietates nihil aliud sunt, quam lusus quidam naturæ, et lascivia, et prope ad individuorum naturam accedunt: atque habent peregrationem quandam in rebus ipsis amœnam et jucundam; informationem vero ad scientias tenuem et fere supervacuam.

Tertio, missæ plane faciendæ sunt omnes narrationes superstitiosæ (non dico prodigiosæ, ubi memoria earum reperietur fida et probabilis, sed superstitiosæ) et experimenta magiæ ceremoniales. Nolumus enim philosophiæ infantiam, cui historia naturalis primam præbet mammam, fabulis anilibus

assueseere. Erit fortasse tempus (postquam in inquisitionem naturæ paulo nltius peuetratum sit) hujusmodi res leviter percurrendi; ut si quid in illis fœcibus hæreat virtutis naturalis, ea extrahi et in usum condi possit. Interim seponeudæ sunt. Etiam magiæ naturalis experimenta diligenter et cum severitate ventilanda sunt, antequam recipiantur; præsertim illn, quæ ex vulgaribus sympathiis et antipathiis, magna cum socordia et facilitate credendi simul et fingendi, derivari solent.

Neque nil, aut parum actum est, in exoneranda historia naturali tribus his (quæ diximus) rebus superfluis; quæ alias volumina impleturæ fuissent. Neque tamen hic finis. Æque enim requiritur in opere magno, ut tam ea, quæ receipiuntur, sueeincte scribantur; quam ut superflua abscindautur: licet nimini dubium esse possit, quin hujusmodi castitas et brevitas delectationem multo minorem tum legenti, tum scribenti, præbitura sit. Verum illud semper ineuleandum est; hoc, quod paratur, horreum esse tautummodo et promptuarium rerum; in quo non manendum aut habitandum sit cum voluptate, sed eo descendendum, prout res postulat, eum aliquid ad usum sumendum sit circa opus *interpretis*, quod sueeedit.

IV.

In historia, quam requirimus, et animo destinamus, ante omnia videndum est, ut late pateat et fneta sit ad mensuram universi. Neque enim nretandus est mundus nd angustias intellectus (quod adhue factum est) sed expandendus iutelleetus et laxandus, ad mundi imaginem receipiendam, qualis invenitur. Istud enim, "Respicere pauca, et pronunciare seeundum pauea," omnia perdidit. Resumentes igitur partitionem, quam paulo ante fecimus, historiæ naturalis (quod sit *generationum, prætergenerationum*, et *artium*) *historiæ generationum* constituimus partes quinque. Sit prima, ætheris et cœlestium. Secunda, meteororum, et regionum (quas vocant) aëris; tractuum videlieet a luna nsque ad auperficiem terræ; eui etiam parti eometas enjuscnnque generis, tum sublimiores, tum humiliores, (ntcunque se habeat rei veritas,) ordinis causa, asaignamus. Tertia, terræ et maris. Quarta, elementorum (quæ vocant) flammæ sive ignis, aëris, aquæ, et terræ. Elementa nutem eo seusn accipi volumus, ut intelligantur non pro primordiis rerum, sed pro corporum naturalium massis majoribus. Ita enim natura rerum distribuitur, ut sit quorundam eorporum quantitas sive massa in universo perquam magna; quin scilieet nd schematismum eorum requiritur textura materiæ facilis et obvia; qualia sunt ea quatuor (quæ diximus) eorpora: at quorundam aliorum eorporum sit qnantitas in universo parva, et parce suppeditata, propter texturam materiæ valde dissimilarem et subtilem, et in plurimis determinatam, et organicam; qualia sunt speeies rerum naturalium, metalla, plantæ, animalia. Quare prius genus corporum, *collegia majora*; posterius *collegia minora* appellare consuevimus. At *collegiorum* istorum *majorum* est pars historiæ quarta, sub nomine elementorum, ut diximus. Neque vero confunditur pars qnnrta cum secuoda aut tertia in hoc, quod in singulis mentionem aëris, aquæ, et terræ fecimus. In secunda enim et tertia recipitur historia eorum, tanquam mundi partium iotegralium, et quntenus pertineut ad fabricam et configurationem universi; at in quarta continetur historia substantiæ et naturæ ipsorum, quæ in singulis eorum partibus similaribus viget, nec nd totum refertur. Quinta denique pars historiæ *collegia minora*, sive *species* continet; circa quas historia natnralis hnctenus præeipue occupata est.

Historiam vero *prætergenerationum* quod attinet; jamdudum a nobis dictum est, quod illa cum historia geuerationum eommodissime conjungi possit: en scilicet, quæ sit prodigiosa tantum, et naturalis. Nam superstitiosam mirneulorum historiam (cujuseunque sit generis) omnino relegamus in tractatum proprium; neqne ipsum jam inde a prineipio suscipiendum, sed paulo post, quando altius in naturæ inquisitionem penetratum fuerit.

At *historiam artium*, et naturæ ab homine versæ et immutatæ, sive historiam experimentalem, triplicem constituimus. Aut enim deprompta est ex artibus meehnnicis; aut ex operativa parte scientiarum liberalium; aut ex practicis compluribua et experimentis, quæ in nrtem propriam non eoalnerunt; imo quæ quandoque ex vulgatissima experientia occurrunt, nec artem omnino desiderant. Quamobrem si ex his omnibus, quæ diximus, *generationibus, prætergenerationibus, artibus*, et *experimentis* confecta fuerit historia; nihil prætermissum videtur, per quod sensus ad informandum intellectum instrui possit. Neque igitur amplius iutra circulos parvos (veluti incantati) subsultabimus, sed mundi pomœria eircuitione æquabimus.

V.

Inter partes eas, quas diximus, historiæ, mnximi nsus est *historia artium:* propterea quod ostendat res in motu, et magis recta ducat ad praxin. Quinetiam tollit larvam et velum a rebus naturalibus, quæ plerunque sub varietate figurarum et apparentiæ externæ occultantur aut obscurantur. Denique vexationes artis sunt eerte tanquam vineula et manieæ Protei, quæ ultimos materiæ nixus et conatus produnt. Corpora enim perdi aut annihilari nolunt; sed potius in varias formas se mutant. Itaque circa hane historiam licet mechanicam (ut videri possit) et minus liberalem (missa arrogantia et fastu) summa est adhibenda diligentia.

Rursus, inter artes præferuntur eæ, quæ corpora naturalia et rerum materialia exhibent, alterant, et præparant; ut agricultura; coquinaria; chemiea; tinetoria; opificia vitri, esmaltæ, saechari, pulveris pyrii, ignium artificialium, papyri, et hujusmodi. Jejunioris autem sunt usus, quæ præcipue consistunt in motu subtili manuum et instrumentorum; qunles sunt textoria; fabrilis; architectura: opificia molendinorum, horologiorum, eum similibus; licet et istæ nullo modo negligendæ sint: tum quin in illis occurrunt multa, quæ ad corporum naturalium alterationes speetant; tum quia aeeurate informant de motu lationis; quæ res est magni prorsus ad plurima momenti.

Verum in congerie universa istius *artium historiæ*,

illud omnino monendum est, et penitus memoriæ mandandum: recipienda esse experimenta artium non solum ea, quæ ducunt ad finem artis, sed etiam quæ ullo modo interveniunt. Exempli gratia, quod locustæ, aut cancri cocti, cum prius colorem luti referrent, rubescant, nihil ad mensam: sed hæc ipsa instantia tamen non mala est ad inquirendam naturam rubedinis; cum idem eveniat etiam in lateribus coctis. Similiter, quod carnes minori mora saliantur hieme quam æstate, non eo tantum spectat, ut coquus cibos bene et quantum sufficit condiat; sed etiam instantia bona est ad indicandam naturam et impressionem frigoris. Quamobrem toto (quod aiunt) cœlo erraverit, qui intentioni nostræ satisfieri existimaverit, si artium experimenta colligantur, hujus rei solum gratia, ut hoc modo artes singulæ melius perficiantur. Licet enim et hoc non prorsus contemnamus in multis; tamen ea plane est mens nostra, ut omnium experimentorum mechanicorum rivuli in philosophiæ pelagus undequaque fluant. Delectus autem instantiarum in unoquoque genere eminentiorum (quas maxime et diligentissime conquirere oportet, et quasi venari) ex prærogativis instantiarum petendus est.

VI.

Resumendum etiam est hoc loco, quod in *aphorismis* XCIX. CXIX. CXX. *libri primi* fusius tractavimus; hic vero, præcepti more, breviter imperare sufficiat: hoc est, ut recipiantur in hanc historiam, primo, res vulgatissimæ, quales quis supervacuum putaret scripto inserere, quia tam familiariter notæ sunt; dein, res viles, illiberales, turpes *(omnia enim munda mundis;* etsi lucrum ex lotio boni odoris sit, multo magis lumen et informatio ex re qualibet): etiam res viles et pueriles (nec mirum, reperascendum enim plane est): postremo, res quæ nimiæ cujusdam subtilitatis esse videntur, quod in se nullius sint usus. Neque enim (ut jam dictum est) quæ in hac historia proponentur, propter se congesta sunt: itaque neque dignitatem eorum ex se metiri par est, sed quatenus ad alia transferri possint, et influant in philosophiam.

VII.

Illud insuper præcipimus, ut omnia in naturalibus tam corporibus quam virtutibus (quantum fieri potest) numerata, appensa, dimensa, determinatur proponantur. Opera enim meditamur, non speculationes. Physica autem et mathematica, bene commixtæ, generant practicam. Quamobrem exactæ restitutiones et distantiæ planetarum, in historia cœlestium: terræ ambitus, et quantum occupet in superficie respectu aquarum, in historia terræ et maris: quantam compressionem aër patiatur absque forti antitypia, in historia aëris: quantum in metallis alterum alteri præponderet, in historia metallorum; et innumera id genus perquirenda et perscribenda sunt. Cum vero exactæ proportiones haberi non possint, tum certe ad æstimativas aut comparativas indefinitas confugiendum est. Veluti (si forte calculis astronomorum, de distantiis, diffidimus) quod luna sit infra umbram terræ; quod Mercurius sit supra lunam; et hujusmodi. Etiam cum mediæ proportiones haberi non possint, proponantur extremæ; veluti, quod languidior magnes attollat ferrum ad tale pondus, respectu ponderis ipsius lapidis; et quod maxime virtuosus, etiam ad rationem sexagecuplam; quod nos in armato magnete admodum parvo fieri vidimus. Atque satis scimus istas instantias determinatas non facile aut sæpe occurrere; sed in ipso interpretationis curriculo, tanquam auxiliares, (quando res maxime postulat,) debere exquiri. Veruntamen si forte occurrant, modo non progressum conficiendæ naturalis historiæ nimis remorentur, etiam in ipsam eas inscrere oportet.

VIII.

Fidem vero eorum, quæ in historia sunt recipienda, quod attinet; necesse est ut illa sint aut fidei certæ, aut fidei dubiæ, aut fidei damnatæ. Atque prius genus simpliciter est proponendum. Secundum cum nota; viz. per verbum *Traditur*, aut *Referunt*, aut *Audivi ex fide digno*, et hujusmodi. Nam argumenta fidei in alterutram partem, nimis operosum foret ascribere: et proculdubio scribentem nimis remorabitur. Neque multum etiam refert ad id, quod agitur: quoniam (ut in *aphorismo* CXVIII. *lib.* I. diximus) falsitatem experimentorum, nisi ea ubique scateant, veritas axiomatum paulo post convincet. Attamen si instantia fuerit nobilior, aut usu ipso, aut quia alia multa ex illo pendere possint; tum certe nominandus est auctor: neque id nude tantum, sed cum mentione aliqua; utrum ille ex relatione, aut exscriptione, (qualia sunt fere quæ scribit C. Plinius,) aut potius ex scientia propria illa affirmaverit; atque etiam utrum fuerit res sui temporis, an vetustior; insuper, utrum sit tale quippiam, cujus necesse foret ut multi essent testes, si verum foret; denique, utrum auctor ille fuerit vaniloquus et levis, an sobrius et severus; et similia, quæ faciunt ad pondus fidei. Postremo res damnatæ fidei, et tamen jactatas et celebratas; quales, partim neglectu, partim propter usum similitudinum, per multa jam secula invalserunt, (veluti, quod adamas liget magnetem, allium enervet; electrum omnia trahat præter ocymum; et alia multa hujusmodi,) oportebit non silentio rejicere, sed verbis expressis proscribere, ne illa amplius scientiis molesta sint.

Præterea non abs re fuerit, si forte origo vanitatis aut credulitatis alicujus occurrat, illam notare: veluti, quod herbæ satyrio attributa sit vis ad excitandam venerem, quia radix scilicet in figuram testiculorum efformata sit: cum revera hoc fiat, quia adnascitur annis singulis nova radix bulbosa, adnærente radice anni prioris; unde didymi illi. Manifestum autem hoc est, quod nova radix semper inveniatur solida et succulenta, vetus emarcida et spongiosa. Quare nil mirum, si altera mergatur in aqua, altera natet: quod tamen pro re mira habetur, et reliquis ejus herbæ virtutibus auctoritatem addidit.

IX.

Supersunt additamenta quædam historiæ naturalis utilia; quæque eam magis commode inflectere et aptare possint ad opus *interpretis*, quod succedit. Illa, quinque sunt.

Primum, quæstiones (non causarum dico, sed

faeti) adjiciendæ sunt, ut inquisitiooem ulteriorem provocent et solicitent: ut, in historia terræ et maris, utrum mare Caspium fluat et refloat, et quali horarum spatio; utrum sit aliqua continens australis, an potius insulæ; et similia.

Seeundo, in experimento aliquo novo et subtiliore, addendus est modus ipse experimenti, qui adhibitus est: ut liberum sit hominum jodieium, utrum informatio per experimentum illud sit fidum aut fallax; atque etiam excitetur hominum industria ad exquirendos modos (si fieri possit) magis accuratos.

Tertio, si quid subsit in aliqua narratione dubii vel scrupuli, id supprimi aut reticeri omnino nolumus; sed plane et perspicue ascribi, notæ aut moniti loco. Cupimus enim historiam primam, veluti facto sacramento de veritate ejus in singulis, religiosissime eonseribi; eum sit volumen operum Dei, et (quantum inter majestatem divinorum, et humilitatem terrenorum collationem facere liceat) tanquam Scriptura altera.

Quarto, non abs re fuerit observationes quandoque aspergere (id quod C. Plinius fecit): veluti in historia terræ et maris; quod terrarum figura (quatenos adhue cognita est) respectu marium, sit ad austrum angusta et veluti acuminata, ad septentriones lata et ampla; marium, eontra: et quod oceani magni intersecent terras alveis exporrectis ioter nostrum et septentriones, non inter orieotem et occidentem, nisi forte in extremis regionibus polaribus. Etiam eanones (qui nil aliud sunt quam observationes generales et eatholicæ) optime ascribuntur: veluti in historia eœlestium; quod Venus nunquam distat a Sole plus partibus 46; Mereurius 23: et quod planetæ, qui supra Solem locantur, tardissime moveant, cum longissime a terra absint; planetæ infra Solem, celerrime. Aliud insuper observationis genus adhibendum; quod nondum in usum venit, licet sit haud exigui momenti. Illud tale est: nempe, ut subjungantur iis quæ sunt, ea quæ non sunt. Veloti, in historia cœlestium, quod non inveniatur stella oblonga vel triangularis; sed quod omnis stella sit globosa: vel globosa simplieiter ut Luna; vel ad aspectom angulata, sed in medio globosa, ut reliquæ stellæ; vel ad aspeetum eomata, et in medio globosa, nt Sol: aut quod stellæ nullo prorsus spargantur ordine: ut non inveniatur vel quineunx, vel quadrangulum, nec alia figura perfeeta, (uteunque imponentur nomina deltæ, eoronæ, crucis, quadrigarum, ete.,) vix etiam linea reeta, nisi forte in cingulo et pugione Orionis.

Quioto, juvabit fortasse nonnihil quærentem, quod eredentem prorsus pervertat et perdat; viz. ut opiniones, quæ nune receptæ sunt, eum earum varietate et sectis, brevi verborum complexu, et tanquam in transitu recenseantur; ut intellectum vellieent, et nihil amplius.

x.

Atque hæc sufficient, quatenus ad præcepta generalia: quæ si diligenter observentur, et finem reeta petet hoc opus historiæ, nec excrescet supra modom. Quod si etiam, prout circumscribitur et limitator, vastum opus alieui pusillaoimo videri possit; is in bibliothecas oculos eonvertat; et, inter alia, eorpora juris eivilis aut juris canoniei ex una parte spectet, et commentarios doctorum et jurisconsultorum ex altera; et videat quid intersit quoad molem et volumina. Nobis enim (qui, tanquam scribæ fideles, leges ipsas naturæ, et nihil aliud excipimus et eonscribimus) brevitas eompetit, et fere ab ipsis rebus imponitur. Opinionom autem, et placitorum, et speculationom, non est nomerus neque finis.

Quod vero in distributione operis nostri mentionem fecimus *eardinalium virtutum* in natura; et quod etiam harum historia, antequam ad opus *interpretationis* ventum fuerit, perscribenda esset; hujus rei minime obliti sumus, sed eam nobis ipsis reservavimus: cum de aliorum industria in hac re, priusquam homines eom natura paulo arctius consuescere incæperint, prolixe spondere non audeamus. Nune itaque ad delinationem *historiarum particularium* veniendum.

Verum, proot nune negotiis distringimur, non ulterius suppetit otium, qoam ut *catalogum* tantum *historiarum particularium* secundum capita sobjungamus. Enimvero eum primum huic rei vacare possimus, eonsilium est in singulis, veluti interrogando, docere; qualia sint eirea unamquamqoe historiarum illarum potissimum inquirenda et conscribenda, tanqoam ea quæ ad finem nostrum faciunt, instar *topicorum* qoorundam partieularium; vel potius, ut (sumpto exemplo a eausis civilibus) in hac *vindicatione magna*, sive *processu*, a favore et providentia divina eoncesso et instituto (per quem genus humanum jus suum in naturam recuperare eontendit) naturam ipsam et artes super artieulos examinemus.

CATALOGUS

HISTORIARUM PARTICULARIUM

SECUNDUM CAPITA.

1. Historia eœlestium; sive astronomiea.
2. Historia configurationis eœli et partiom ejos, versus terram et partes ejus; sive cosmographica.
3. Historia cometarum.
4. Historia meteororum iguitorum.
5. Historia fulgurum, fulminum, tonitruum, et coruscationum.
6. Historia ventorum, et flatuum repentinorum, et undulationum aëris.
7. Historia iridum.

8. Historia nubium, prout superne conspiciuntur.
9. Historia expansionis cœruleæ, crepusculi, plurium solium, plurium lunarum, halonum, colorum variorum solis et lunæ; atque omnis varietatis cœlestium ad aspectum, quæ fit ratione medii.
10. Historia pluviarum ordinariarum, procellosarum, et prodigiosarum; etiam cataractarum (quas vocant) cœli, et similium.
11. Historia grandinis, nivis, gelu, pruinæ, nebulæ, roris, et similium.
12. Historia omnium aliorum cadentium sive descendentium ex alto, et superne generatorum.
13. Historia sonituum in alto (si modo sint aliqui) præter tonitrua.
14. Historia aëris, in toto, sive in configuratione mundi.
15. Historia tempestatum, sive temperamentorum anni, tam secundum variationes regionum, quam secundum accidentia temporum, et periodos annorum; diluviorum, fervorum, siccitatum, et similium.
16. Historia terræ et maris; figuræ et ambitus ipsorum, et configurationis ipsorum inter se, atque exporrectionis ipsorum in latum aut angustum; insularum terræ in mari, sinuum maris, et lacuum salsorum in terra, isthmorum, promontoriorum.
17. Historia motuum (si qui sint) globi terræ et maris; et ex quibus experimentis illi colligi possint.
18. Historia motuum majorum et perturbationum in terra et mari; nempe terræ motuum, et tremorum, et hiatuum, inaularum de novo enascentium, insularum fluctuantium, abruptionum terrarum per ingressum maris, invasionum et illuvionum, et contra desertionum maris; eruptionum igniom e terra, eruptionum subitanearum aquarum e terra, et similium.
19. Historia geographica naturalis, montium, vallium, sylvarum, planitierum, arenarum, paludum, lacuum, fluviorum, torrentium, fontium, et omnis diversitatis scaturiginis ipsorum, et similium: missis gentibus, provinciis, urbibus, et hujusmodi civilibus.
20. Historia fluxuum et refluxuum maris, euriporum, undulationum et motuum maris aliorum.
21. Historia cæterorum accidentium maris; salsuginis ejus, colorum diversorum, profunditatis; et rupium, montium, et vallium submarinorum, et similium.

SEQUUNTUR HISTORIÆ MASSARUM MAJORUM.

22. Historia flammæ, et ignitorum.
23. Historia aëris in substantia, non in configuratione.
24. Historia aquæ in substantia, non in configuratione.
25. Historia terræ et diversitatis ejus in substantia, non in configuratione.

SEQUUNTUR HISTORIÆ SPECIERUM.

26. Historia metallorum perfectorum, auri, argenti; et minerarum, venarum, marcasitarum eorundem: operaria quoque in mineris ipsorum.
27. Historia argenti vivi.
28. Historia fossilium; veluti vitrioli, et sulphuris, etc.
29. Historia gemmarum; veluti adamantis, rubini, etc.
30. Historia lapidum; ut marmoris, lapidis Lydii, silicis, etc.
31. Historia magnetis.
32. Historia corporum miscellaneorum, quæ nec sunt fossilia prorsus, nec vegetabilia, ut salium, succini, ambræ-griseæ, etc.
33. Historia chemica circa metalla et mineralia.
34. Historia plantarum, arborum, fruticum, herbarum; et partium eorum, radicum, caulium, ligni, foliorum, florum, fructuum, seminum, lacrymarum, etc.
35. Historia chemica circa vegetabilia.
36. Historia piscium, et partium ac generationis ipsorum.
37. Historia volatilium, et partium ac generationis ipsorum.
38. Historia quadrupedum, et partium ac generationis ipsorum.
39. Historia serpentum, vermium, muscarum, et cæterorum insectorum; et partium ac generationis ipsorum.
40. Historia chemica circa ea quæ sumuntur ab animalibus.

SEQUUNTUR HISTORIÆ HOMINIS.

41. Historia figuræ, et membrorum externorum hominis, staturæ, compagis, vultis, et lineamentorum; eorumque varietatis secundum gentes et climata, aut alias minores differentias.
42. Historia physiognomica super ipsa.
43. Historia anatomica, sive membrorum internorum hominis; et varietatis ipsorum, quatenus invenitur in ipsa naturali compage et structura, et non tantum quoad morbos et accidentia præternaturalia.
44. Historia partium similarium hominis; ut carnis, ossium, membranarum, etc.
45. Historia humorum in homine; sanguinis, bilis, spermatis, etc.
46. Historia excrementorum; sputi, urinarum, sudorum, sedimentorum, capillorum, pilorum, rediviarum, unguium, et similium.
47. Historia facultatum; attractionis, digestionis, retentionis, expulsionis, sanguificationis, assimilationis alimentorum in membra, versionis sanguinis et floris ejus in spiritum, etc.
48. Historia motuum naturalium et involuntariorum; ut motus cordis, motus pulsuum, sternutationis, motus pulmonum, motus erectionis virgæ, etc.
49. Historia motuum mixtorum ex naturalibus et voluntariis; veluti respirationis, tussis, urinationis, sedis, etc.
50. Historia motuum voluntariorum; ut instrumentorum ad voces articulatas; ut motuum oculorum, linguæ, faucium, manuum, digitorum, deglutitionis, etc.
51. Historia somni et insomniorum.
52. Historia diversorum habituum corporis; pin-

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guis, macilenti; complexionum (quas vocant) etc.

53. Historia generationis hominum.
54. Historia conceptionis, vivificationis, gestationis in utero, partus, etc.
55. Historia alimentationis hominis, atque omnis edulii et potabilis, atque omnis diætæ; et varietatis ipsorum secundum gentes aut minores differentias.
56. Historia augmentationis et incrementi corporis in toto et partibus ipsius.
57. Historia decursus ætatis; infantiæ, pueritiæ, juventutis, senectutis, longævitatis, brevitatis vitæ, et similium, secundum gentes et minores differentias.
58. Historia vitæ et mortis.
59. Historia medicinalis morborum, et symptomatum et signorum eorundem.
60. Historia medicinalis curæ, et remediorum, et liberationum a morbis.
61. Historia medicinalis eorum quæ conservant corpus et sanitatem.
62. Historia medicinalis eorum quæ pertinent ad formam et decus corporis, etc.
63. Historia medicinalis eorum quæ corpus alterant, et pertinent ad regimen alterativum.
64. Historia pharmacopolaris.
65. Historia chirurgica.
66. Historia chemica circa medicinas.
67. Historia visus et visibilium, sive optica.
68. Historia picturæ, sculptoria, plastica, etc.
69. Historia auditus et sonorum.
70. Historia musicæ.
71. Historia olfactus et odorum.
72. Historia gustus, et saporum.
73. Historia tactus et ejus objectorum.
74. Historia Veneris, ut speciei tactus.
75. Historia dolorum corporeorum, ut speciei tactus.
76. Historia voluptatis et doloris in genere.
77. Historia affectuum; ut iræ, amoris, verecundiæ, etc.
78. Historia facultatum intellectualium; cogitativæ, phantasiæ, discursus, memoriæ, etc.
79. Historia divinationum naturalium.
80. Historia dignotionum, sive diacrisium occultarum naturalium.
81. Historia coquinaria; et artium subservientium, veluti macellaria, aviaria, etc.
82. Historia pistoria, et panificiorum; et artium subservientium, ut molendinaria, etc.
83. Historia vinaria.
84. Historia cellaria, et diversorum generum potus.
85. Historia bellariorum et confecturarum.
86. Historia mellis.
87. Historia sacchari.
88. Historia laeticiniorum.
89. Historia balneatoria, et unguentaria.
90. Historia miscellanea circa curam corporis; tonsorum, odorariorum, etc.
91. Historia auri-fabrilis, et artium subservientium.
92. Historia lanificiorum, et artium subservientium.
93. Historia opificiorum e serico et bombyce, et artium subservientium.
94. Historia opificiorum ex lino, cannabio, gossipio, setis, et aliis filaccis; et artium subservientium.
95. Historia plumificiorum.
96. Historia textoria, et artium subservientium.
97. Historia tinctoria.
98. Historia coriaria, alutaria; et artium subservientium.
99. Historia culcitraria et plumaria.
100. Historia ferri-fabrilis.
101. Historia latomiæ sive lapicidarum.
102. Historia laterara, et tegularia.
103. Historia figularis.
104. Historia cæmentaria, et crustaria.
105. Historia ligni-fabrilis.
106. Historia plumbaria.
107. Historia vitri et omnium vitreorum, et vitriaria.
108. Historia architecturæ in genere.
109. Historia plaustraria, rhedaria, lecticaria, etc.
110. Historia typographica, libraria, scriptoria, sigillatoria; atramenti, calami, papyri, membranæ, etc.
111. Historia ceræ.
112. Historia viminaria.
113. Historia storearia, et opificiorum ex stramine, scirpis, et similibus.
114. Historia lotricaria, scoparia, etc.
115. Historia agriculturæ, pascuariæ, cultus sylvarum, etc.
116. Historia hortulana.
117. Historia piscatoria.
118. Historia venationis et aucupii.
119. Historia rei bellicæ, et artium subservientium; ut armamentaria, areuaria, sagittaria, sclopetaria, tormentaria, balistaria, machinaria, etc.
120. Historia rei nauticæ, et practicarum, et artium subservientium.
121. Historia athletica, et omnis generis exercitationum hominis.
122. Historia rei equestris.
123. Historia ludorum omnis generis.
124. Historia præstigiatorum et circulatorum.
125. Historia miscellanea diversarum materiarum artificialium; ut esmaltæ, porcellanæ, complurium cæmentorum, etc.
126. Historia salium.
127. Historia miscellanea diversarum machinarum, et motuum.
128. Historia miscellanea experimentorum vulgarium, quæ non coaluerunt in artem.

ETIAM MATHEMATICARUM PURARUM HISTORIÆ, CONSCRIBENDÆ SUNT, LICET SINT POTIUS OBSERVATIONES QUAM EXPERIMENTA.

129. Historia naturarum et potestatum numerorum.
130. Historia naturarum et potestatum figurarum.

Non abs re fuerit admonere, quod, cum necesse sit multa ex experimentis sub duobus titulis vel pluribus cadere (veluti historia plantarum, et historia artis hortulanæ multa habebunt fere communia) commodior sit inquisitio per artes, dispositio vero per corpora. Parum enim nobis curæ est de artibus ipsis mechanicis, sed tantum de iis quæ afferunt ad instruendam philosophiam. Verum hæc e re nata melius regentur.

FRAGMENTUM LIBRI VERULAMIANI,

CUI TITULUS

ABECEDARIUM NATURÆ.

Cum tam multa producantor a terra et aquis, tam multa pertranseant aërem et ab eo excipiantur, tam multa mutentur et solvantur ab igne, minus perspicuæ forent inqoisitiones cæteræ, nisi natura massarum istarum, quæ toties occurrent, bene cognita et explicata. His adjungimus inquisitiones de cœlestibus et meteoricis, cum et ipsæ sint massæ majores, et ex catholicis. *Vide Augm. Scient. Lib.* II. *c.* 3. *et Glob. Intellect.*

Massæ majores: inquisitio sexagesima septima. Triplex Tau, sive de terra.

Massæ majores: inqoisitio sexagesima octava. Triplex Upsilon, sive de aqua.

Massæ majores: inquisitio sexagesima nona. Triplex Phi, sive de aëre.

Massæ majores: inquisitio septuagesima. Triplex Chi, sive de igne.

Massæ majores: inquisitio septuagesima prima. Triplex Psi, sive de cœlestibus.

Massæ majores: inqoisitio septuagesima seconda. Triplex Omega, sive de meteoricis.

CONDITIONES ENTIUM.

Supersunt ad inqoirendom in Abecedario conditiones entium, quæ videntur esse tanquam transcendentia, et parum stringnnt de corpore naturæ, tamen eo, quo utimur, inquirendi modo, haod parum afferent illustrationis ad reliqua. Primo igitur, cum optime observatnm fuerit a Democrito, naturam rerum esse copia materiæ et individuorum varietate amplam, atque (ut ille vult) infinitam; coitionibus vero et speciebus in tantum finitam, ut etiam angusta, et tanquam paupereula, videri possit: quandoquidem tam paucæ inveniantur species, quæ sint aut esse possint, ut exercitum millenarium vix conficiant: cumque negativa affirmativis subjuncta ad informationem intellectus plurimom valeant; constituenda est inquisitio de ente, et non ente. Ea ordine est septuagesima tertia, et quadruplex Alpha numeratur.

Conditiones entium. Quadruplex Alpha; sive de ente et non ente.

Possibile et impossibile nil aliud est, quam potentiale ad ens, aut non potentiale ad ens. De eo inquisitio septuagesima quarta conficitor; quæ qoadruplex Beta numeratur.

Conditiones entium. Quadruplex Beta; sive de possibili et impossibili.

Etiam multum, paucum, rarum, consuetum, sunt potentialia ad ens in quanto. De iis inquisitio septuagesima quinta esto, quæ quadruplex Gamma nomeretur.

Conditiones entium. Quadruplex Gamma; sive de multo et pauco.

Durabile et transitorium, æternum et momentaneum, sunt potentialia ad ens in duratione. De illis septoagesima sexta inqoisitio esto, quæ quadruplex Delta numeratur.

Conditiones entium. Quadruplex Delta; sive de dorabili et transitorio.

Naturale et monstrosum sunt potentialia ad ens, per cursum naturæ, et per deviationes ejus. De iis inquisitio septuagesima septima esto, quæ quadruplex Epsilon numeratur.

Conditiones entium. Quadruplex Epsilon; sive de naturali et monstroso.

Naturale et artificiale sunt potentialia ad ens, sine homine, et per hominem. De iis inquisitio septuagesima octava conficitor, quæ quadruplex Zeta numeretur.

Conditiones entium. Quadruplex Zeta; sive de naturali et artificiali.

Exempla in explicatione ordinis Abecedarii non adjunximus, qoia ipsæ inquisitiones continent totas acies exemplorum.

Tituli, secundum quos ordo Abecedarii est dispositus, nullo modo eam auctoritatem habento, ut pro veris et fixis rerum divisionibus recipiantur. Hoc enim esset profiteri scire nos quæ inquirimus. Nam nemo res vere dispertit, qui non naturam ipsarum penitus cognovit. Satis sit, si ad ordinem inquirendi (id quod nunc agitur) commode se habeant.

NORMA ABECEDARII.

Abecedarium hoc modo conficimus et regimus. Historia et experimenta omnino primas partes tenent. Ea, si enumerationem et seriem rerum particularium exhibeant, in tabolas conficiuntur; aliter sparsim excipiuntur.

Cum vero historia et experimenta sæpissime nos deserant, præsertim lucifera illa, et instantiæ crucis, per quas de veris rerum causis intellectui constare possit; mandata damus de experimentis novis. Hæc sint tanquam historia designata. Quid enim aliud nobis primo viam ingredientibus relinquitur?

Modum experimenti subtilioris explicamus, ne error subsit, atque ut alios ad meliores modos excogitandos excitemus.

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Etiam monita et cautiones de rerum fallaciis et inveniendi erroribus, quæ nobis occurrunt, aspergimus. Observationes nostras super historiam et experimenta subteximus, ut interpretatio naturæ magis sit in procinctu.

Etiam canones, sed tamen mobiles, et axiomata inchoata, qualia nobis inquirentibus, non pronunciantibus, se offerunt, constituimus: utilia enim sunt, si non prorsus vera.

Denique tentamenta quædam interpretationis quandoque molimur, licet prorsus humi repentia, et vero interpretationis nomine nullo modo (ut arbitramur) decoranda. Quid enim nobis supercilia opus est aut impostura, cum toties profiteamur, nec nobis historiam et experimenta, qualibus opus est, suppetere, nec absque his interpretationem naturæ perfici posse, ideoque nobis satis esse, si initiis rerum non desimus?

Perspicuitatis autem et ordinis gratia, aditus quoslam ad inquisitiones, instar præfationum, substernimus: item connexiones et vincula, ne inquisitiones sint magis abruptæ, interponimus.

Ad usum vero vellicationes quasdam de practica suggerimus.

Etiam optativa eorum, quæ adhuc non habentur, una cum proximis suis, ad erigendam humanam industriam, proponimus.

Neque sumus nescii, inquisitiones inter se aliquando complicari, ita ut nonnulla ex inquisitis in titulos diversos incidant. Sed modum eum adhibebimus, ut et repetitionum fastidia et rejectionum molestias, quantum fieri possit, vitemus; postponentes tamen hoc ipsum (quando necesse fuerit) perspicuitati docendi, in argumento tam obscuro.

Hæc est abecedarii norma et regula. Deus universi conditor, conservator et instaurator, opus hoc et in ascensione ad gloriam suam, et in descensione ad bonum humanum, pro sua erga homines benevolentia et misericordia, protegat et regat, per Filium suum unicum nobiscum Deum.

HISTORIÆ NATURALIS

AD CONDENDAM

PHILOSOPHIAM

PRÆFATIO.

Cum nobis homines nec opinandi nec experiendi vias tenere prorsus videantur, omni ope huic infortunio subveniendum putavimus: neque enim major aliunde se ostendit bene merendi ratio, quam si id agatur, ut homines, et placitorum larvis, et experimentorum stuporibus liberati, ipsi cum rebus, magis fida et magis arcta inita societate, contrahant quasi per experientiam quandam literatam. Hoc enim modo intellectus et in tuto et in summo collocatur, atque præsto insuper erit, atque ingruet rerum utilium proventus. Atque hujus rei exordia omnino a naturali historia ducenda sunt; nam universa philosophia Græcorum, cum sectis suis omnigenis, atque si qua alia philosophia in manibus est, nobis videtur super nimis angustam basin naturalis historiæ fundata esse, atque ex paucioribus, quam per erat, pronuntiasse. Arreptis enim quibusdam ab experientia traditionibus, neque iis interdum aut diligenter examinatis, reliqua in meditatione et ingenii agitatione posuere, assumpta in majorem rei fiduciem dialectica. Chemistæ autem, et universum mechanicorum et empiricorum genus, si et illis contemplationes et philosophiam tentare audacia crevit, paucarum rerum accuratæ subtilitati assueti, miris modis reliquas ad eas contorquent; et placita magis deformia et monstrosa, quam rationales illi producunt. Illi enim parum ex multis, hi rursus multum ex paucis, in philosophiæ materiam sumunt; utriusque autem ratio, si verum dicendum sit, infirma est et perdita. Sed naturalis historia, quæ hactenus congesta est, primo intuitu copiosa videri possit; cum revera sit egena et inutilis, neque adeo ejus generis, quod quærimus. Neque enim a fabulis et deliriis purgata est, et in antiquitatem, et philologiam, et narrationes supervacuas excurrit, circa solida negligens et fastidiosa, curiosa et nimia in inanibus. Pessimum autem est in hac copia, quod rerum naturalium inquisitionem amplexa est, rerum autem mechanicarum magna ex parte aspernata. Atque hæ ipsæ ad naturæ sinus excutiendos longe illis præstant; natura enim, sponte sua fusa at vaga, disgregat intellectum, et varietate sua confundit; verum in mechanicis operationibus contrahitur judicium, et naturæ modi et processus cernuntur, non tantum effecta. Atque rursus universa mechanicorum subtilitas citra rem, quam quærimus, sistitur: artifex enim, operi et fini suo intentus, ad alia (quæ forsan ad naturæ inquisitionem magis faciunt) nec animum erigit, nec manum porrigit. Itaque magis exquisita cura opus est, et probationibus electis, atque sumptu etiam, ac summa insuper patientia. Illud enim in experimentalibus omnia perdidit, quod homines etiam a principio fructifera experimenta, non lucifera, sectati sunt; atque ad opus aliquod magnificum educendum omnino incubuere, non ad pandenda oracula naturæ, quod opus operum est, et omnem

potestatem in se complectitur. Intervenit et illud ex hominum curiositate et fastu, quod ad secreta et rara se plerumque converterunt, et in his operam et inquisitionem posuerunt, spretis experimentis atque observationibus vulgatis: quod videntur fecisse, aut admirationem et famam captantes, aut in eo lapsi et decepti, quod philosophiæ officium in accommodandis et reducendis rarioribus eventibus ad ea, quæ familiariter occurrunt, non æque in ipsarum illarum vulgarium rerum causis, et causarum causis altioribus eruendis, sitam esse existimarunt. Universæ autem hujus de naturali historia querelæ causa ea præcipua est, quod homines non in opere tantum, sed in ipso instituto aberrarunt. Namque Historia illa naturalis, quæ extat, aut ob ipsorum experimentorum utilitatem, aut ob narrationum jucunditatem, confecta videtur, et propter se facta; non ut philosophiæ et scientiis initia, et veluti mammam præbeat. Itaque huic rei pro facultate nostra de esse nolumus. Nobis enim quantum philosophiis abstractis sit tribuendum jampridem constitutum est. Etiam vias inductionis veræ et bonæ, in qua sunt omnia, tenere nos arbitramur, et intellectus humani versus scientias facultatem incompetentem et prorsus imparem, veluti per machinas, aut filum aliquod labyrinthi, posse juvare. Neque nescii sumus, nos, si instaurationem illam scientiarum, quam in animo habemus, intra inventa ulla majora cohibere voluissemus, ampliorem fortasse honoris fructum percipere potuisse. Verum cum nobis Deus animum indiderit, qui se rebus submittere sciat, quique, ex meriti conscientia et successus fiducia, speciosa libens prætereat; eam etiam partem operis nobis desumpsimus, quam existimamus alium quemquam aut in universum fugere, aut non pro instituto nostro tractare voluisse. Circa hoc autem duo sunt, de quibus homines, et alias, et nunc præcipue, cum ad rem ipsam accingimur, monitos volumus. Primo, ut mittant illam cogitationem, quæ facile hominum mentes occupat et obsidet, licet sit falsissima et perniciosissima; eam videlicet, quod rerum particularium inquisitio infinitum quiddam sit et sine exitu: cum illud verius sit, opinionum et disputationum modum nullum esse; sed phantasias illas ad perpetuos errores et infinitas agitationes damnari; particularia autem et informationes sensus (demptis individuis et rerum gradibus, quod inquisitioni veritatis satis est) comprehensionem pro certo, nec eam sane vastam aut desperatam, patiuntur. Secundo, ut homines subinde meminerint quid agatur, atque cum inciderint in complures res vulgatissimas, exiles, ac specie tenus leves, etiam turpes, et quibus (ut ait ille) honos præfandus sit; non arbitrentur nos nugari, aut mentem humanam inferius, quam pro dignitate sua, deprimere. Neque enim ista propter se quæsita aut descripta sunt; sed nulla prorsus alia patet intellectui humano via, neque ratio operis aliter constat: nos siquidem conamur rem omnium maxime seriam, et humana mente dignissimam, ut lumen naturæ purum et minime phantasticum (cujus nomen hactenus quandoque jactatur; res hominibus penitus ignota est) per facem a divino Numine præbitam et admotam, hoc nostro seculo accendatur. Neque enim dissimulamus nos in ea opinione esse, præposteram illam argumentorum et meditationum subtilitatem, primæ informationis sive veræ inductionis subtilitate et veritate suo tempore prætermissa, aut non recte instituta, rem in integrum restituere nullo modo posse, licet omnia omnium ætatum ingenia coierint; sed naturam, ut fortunam, a fronte capillatam, ab occipitio calvam esse. Restat itaque ut res de integro tentetur, idque majoribus præsidiis, atque, exutis opinionum zelis, detur aditus ad regnum philosophiæ et scientiarum in quo opes humanæ sitæ sunt, (natura enim non nisi parendo vincitur,) qualis patet ad regnum illud cœlorum, in quod, nisi sub persona infantis, ingredi non licet. Usum autem hujus operis plebeium illum et promiscuum ex experimentis ipsis omnino non contemninus, (cum et notitiæ et inventioni hominum, pro varietate artium et ingeniorum, plurima utilia proculdubio suggerere possit), attamen minimum quiddam esse censemus præ eo aditu ad scientiam et potentiam humanam, quem ex misericordia divina speramus: a qua etiam supplices iterum petimus, ut novis eleemosynis per manus nostras familiam humanam dotare dignetur.

Natura rerum aut libera est, ut in speciebus; aut perturbata, ut in monstris; aut constricta, ut in experimentis artium: facinora autem ejus cujuscunque generis digna memoratu et historia. Sed historia specierum, quæ habetur, veluti plantarum, animalium, metallorum, et fossilium, tumida est et curiosa; historia mirabilium, vana et e rumore; historia experimentorum manca, tentata per partes, tractata negligenter, atque omnino in usum practicæ, non in usum philosophiæ. Nobis itaque stat decretum, historiam specierum contrahere, historiam mirabilium excentere atque expurgare; præcipuam autem operam in experimentis mechanicis et artificialibus, atque naturæ erga manum humanam obsequiis, collocare. Quid enim ad nos lusus naturæ et lascivia? Hoc est pusillæ specierum ex figura differentiæ quæ ad opera nil faciunt, in quibus nihilominus naturalis historia luxuriatur. Mirabilium autem cognitio grata certe nobis, si expurgata et electa sit: sed quamobrem tandem grata? Non ob ipsam admirationis snavitatem, sed quod sæpe artem officii sui admonet, ut naturam sciens eo perducat, quo ipsa sponte sua nonnunquam præivit. Omnino primas partes ad excitandum lumen naturæ artificialibus tribuimus; non tantum quia per se utilissima, sed quia naturalium fidissimi interpretes. Num forte fulguris, aut iridis naturam tam clare explicasset quisquam, antequam per tormenta bellica aut artificiosa iridum super parietem simulacra, utriusque ratio demonstrata esset? Quod si causarum fidi interpretes, etiam affectorum et operum certi et felices indices erunt. Neque tamen consentaneum putamus ex triplici ista partitione historiam nostram distrahere, ut singula seorsum tractentur, sed genera ipsa miscebimus, naturalia artificialibus, consueta admirandis adjungentes, atque utilissimis quibusque maxime inhærentes.

Atque a phænomenis ætheris ordiri solennius foret. Nos autem nil de severitate instituti nostri remittentes, ea anteferemus, quæ naturam constituunt et referunt magis communem, cujus uterque globus est particeps. Ordiemur vero ab historia corporum secundum eam differentiam quæ videtur simplicissima; ea est copia aut paucitas materiæ intra idem spatium sive eandem circumscriptionem contentæ et exporrectæ;

nam cum ex pronunciatis de natura nil verius sit, quam propositio illa gemella, " Ex nihilo nihil fieri, neque quicquam in nihilum redigi," sed quantum ipsum naturæ, sive materiæ summam universalem, perpetuo manere et constare, et neutiquam augeri aut minui. Etiam illud non minus certum, tametsi non tam perspicue notatum aut assertum sit, (quicquid homines de potentia materiæ æquabili ad formas fabulentur,) ex quanto illo materiæ sub iisdem spatiorum dimensionibus plus et minus contineri, pro corporum diversitate a quibus occupantur, quorum alia magis compacta, alia magis extensa sive fusa evidentissime reperiuntur. Neque enim parem materiæ portionem recipit vas aut concavum aqua et aëre impletum; sed illud plus, istud minus. Itaque si quis asserat, ex pari aëris contento par aquæ contentum effici posse, idem est, ac si dicat, aliquid fieri posse ex nihilo. Nam quod deesse supponitur ex materia, id ex nihilo suppleri necesse foret. Rursus si quis asserat, par contentum aquæ in par contentum aëris posse verti, idem est, ac si dicat, aliquid posse redigi in nihilum. Nam quod supersesse supponitur ex materia, id ad nihilum evanuisse similiter necesse foret. Neque nobis dubium est, quin hæc res etiam calculos pati possit, surdos fortasse in aliquibus, sed definitos et certos, et naturæ notos. Veluti si quis dicat, auri corpus, collatum ad corpus spiritus vini, esse concervationem materiæ superantem ratione vicecupla simpla aut circiter, non erraverit. Itaque, exhibituri jam historiam eam, quam diximus, de copia et paucitate materiæ, atque de materiæ coitione atque expansione, ex quibus notiones illæ densi et rari (si proprie accipiantur) ortum habent; hunc ordinem servabimus, ut primo corporum diversorum (ut auri, aquæ, olei, aëris, flammæ) rationes ad invicem recenseamus. Examinatis autem rationibus corporum diversorum, postea unius atque ejusdem corporis subingressus et expatiationes, cum calculis sive rationibus, memorabimus. Idem enim corpus, etiam absque accessione aut ablatione, aut saltem minime pro rata contractionis et extensionis, ex variis impulsibus tum externis tum internis, sustinet se congerere in majorem et minorem sphæram. Interdum enim lætatur corpus, et in veterem sphæram se restituere nititur; interdum plane transmigrat, nec revertere satagit. Hic cursus primo atque differentias et rationes corporis alicujus naturalis (quoad extentum) collati cum aperturis aut clausuris suis, memorabimus; videlicet cum pulveribus suis, cum calcibus suis, cum vitrificationibus suis, cum dissolutionibus suis, cum distillatis suis, cum vaporibus et auris, exhalationibus et inflammationibus suis memorabimus; deinde actus ipsos et motus, et progressus et terminos contractionis et dilatationis proponemus, et quando se restituant corpora, quando transmigrant secundum extentum; præcipue autem efficientia et media, per quæ hujusmodi corporum contractiones et dilatationes sequuntur, notabimus: atque interim virtutes et actiones, quæ corpora ex hujusmodi compressionibus et dilatationibus induunt et nanciscuntur, obiter subtexemus. Cumque probe noverimus quam difficilis res sit, in præsenti animorum statu, jam ab ipso principio cum natura consuescere, observationes nostras, ad attentionem hominum et meditationem excitandam et conciliandam, adjiciemus. Quod ad demonstrationem autem attinet, sive retectionem densitatis et raritatis corporum, nil dubitamus aut cunctamur quin quoad corpora crassa et palpabilia motus gravitatis (quem vocant) loco optimæ et maxime expeditæ probationis sumi possit: quo enim corpus compactius, eo gravius. Verum postquam ad gradum aëreorum et spiritualium ventum est, tum profecto a lancibus destituimur, atque alia nobis industria opus erit. Incipiemus autem ab auro, quod omnium, quæ habemus, (neque enim tam adulta est philosophia, ut de visceribus terræ statuere debeamus,) gravissimum est atque plurimum materiæ minimo spatio complectitur; atque ad hujus corporis sphæram reliquorum rationes applicabimus; illud monentes, historiam ponderum hic nos minime tractare, nisi quatenus ad corporum spatia sive dimensa demonstranda lucem præbeat. Cum vero non conjicere et hariolari, sed invenire et scire, nobis propositum sit, hoc autem in examine et probatione experimentorum primorum magnopere positum esse judicemus, prorsus decrevimus in omni experimento subtiliore modum experimenti, quo usi sumus, aperte subjungere; ut postquam patefactum sit quomodo singula nobis constiterint, videant homines et quatenus fidem adhibeant, et quid ulterius faciendum sit, sive ad errores corrigendos, qui adhærere possint, sive ad excitandas atque adoperandas probationes magis fidas et exquisitas. Quin et ipsi de iis, quæ nobis minus explorata, atque errori magis exposita, et quasi finitima videbuntur, sedulo et sincere monebimus. Postremo, observationes nostras (ut modo diximus) adjiciemus, ut licet omnia integra philosophiæ servemus, tamen faciem ipsam historiæ naturalis etiam in transitu versus philosophiam obvertamus. Atque porro illud curabimus, ut quæcunque ea sint, sive experimenta sive observationes, quæ præter scopum inquisitionis occurrunt atque interveniunt, et ad alios titulos proprie pertinent, notemus, ne inquisitio confundatur.

TITULI HISTORIARUM ET INQUISITIONUM

IN PRIMOS SEX MENSES DESTINATARUM.

HISTORIA VENTORUM.
HISTORIA DENSI ET RARI, NECNON COITIONIS ET EXPANSIONIS MATERIÆ PER SPATIA.
HISTORIA GRAVIS ET LEVIS.
HISTORIA SYMPATHIÆ ET ANTIPATHIÆ RERUM
HISTORIA SULPHURIS, MERCURII, ET SALIS.
HISTORIA VITÆ ET MORTIS.

HISTORIA NATURALIS ET EXPERIMENTALIS

AD CONDENDAM

PHILOSOPHIAM:

SIVE

PHÆNOMENA UNIVERSI,

QUÆ EST "INSTAURATIONIS MAGNÆ" PARS TERTIA.

Monendi utique sunt homines, et per fortunas suas rogandi atque obsecrandi, ut animos submittant, et scientias in mundo majore quærant: quinetiam de philosophia vel cogitationem abjeiant, vel modicos saltem et tenues fructus ex illa sperent, usque dum Historia naturalis et experimentalis, diligens et probata, comparata sit et confecta. Quid enim sibi volunt ista cerebella hominum, et potentes nugæ? Fuerunt apud antiquos placita philosophorum valde numerosa; Pythagoræ, Philolai, Xenophanis, Heraeliti, Empedoelis, Parmenidis, Anaxagoræ, Leucippi, Democriti, Platonis, Aristotelis, Theophrasti, Zenonis, aliorum. Hi omnes mundorum argumenta, tanquam fabularum, pro arbitrio confinxerunt, easque fabulas suas recitarunt, publicarunt; alias magis coneinnas certe et probabiles, alias duriores. At nostris seculis, propter instituta scholarum et collegiorum, cohibentur ingenia magis; neque propterea omnino cessatum est: Patricius, Telesius, Brunus, Severinus Danus, Gilbertus Anglus, Campanella, scenam tentarunt, et novas fabulas egerunt, nec plausu celebres, nec argumento elegantes. Num hæc miramur? Quasi vero non possint infinita oriri hujusmodi placita et sectæ, omnibus seculis? Neque enim est, aut erit, hujusce rei finis aliquis aut modus. Alius aliud arripit, aliis alia placent; nihil est luminis sicci et aperti; quisque ex phantasiæ suæ cellulis, tanquam ex speeu Platonis, philosophatur; ingenia sublimiora, aeutius, felicius; tardiora, minore suecessu, sed æque pertinaeia. Quin non ita pridem, ex quorundam virorum doctorum, et, prout nunc sunt res, exeellentium disciplina, scientiæ (eredo propter varietatis et licentiæ tædia) intra certos et deseriptos auctores coërcentur, atque ita eohibitæ, senioribus imponuntur, adolescentibus instillantur; ut jam (quod cavillatus est Cicero in Cæsaris annum) "Stella lyræ ex edicto oriatur;" et auctoritas pro veritate, non veritas pro auctoritate sit. Quod genus institutionis et disciplinæ ad usum præsentem egregie valet; sed idem meliorum indicit exilium. Nimirum primorum parentum peccatum et hujus et imitamur: illi Dei similes esse voluerunt, posteri eorum adhuc magis; etenim mundos creamus, naturæ præimus et dominamur, omnia ita se habere volumus, prout nostræ fatuitati consentaneum fore videtur, non prout divinæ Sapientiæ, nec qualia inveniuntur in rebus ipsis; nec scio an res aut ingenia magis torqueamus: sed plane sigilla imaginis nostræ creaturis et operibus Dei imprimimus, non Creatoris sigilla eum eura inspicimus et agnoscimus. Itaque non immerito iterum de imperio in creaturas decidimus: et cum post lapsum hominis nihilominus dominatio nonnulla in creaturas reluctantes relicta fuerit, ut per veras et solidas artes subigi et fleeti possint, id ipsum ex insolentia nostra, et quia Dei similes esse volumus, et propriæ rationis dictamina sequi, maxima ex parte amittimus. Quamobrem, si qua est erga Creatorem humilitas, si qua operum ejus reverentia et magnificatio; si qua charitas in homines, et erga necessitates et ærumnas humanas relevandas studium; si quis amor veritatis in naturalibus, et odium tenebrarum, et intellectus purificandi desiderium, orandi sunt homines iterum atque iterum, ut, missis paulisper, aut saltem sepositis, philosophiis istis volaticis et præposteris, quæ theses hypothesibus anteposuerunt, et experientiam captivam duxerunt, atque de operibus Dei triumpharunt; summisse, et cum veneratione

quadam, ad volumen creaturarum evolvendum accedunt: atque in eo muram faciant, meditentur, et ab opinionibus abluti et mundi caste et integre versentur. Hic est ille sermo et lingua, qui "exivit in omnes fines terræ:" nec confusionem Babylonicam passus est: hunc perdiscant homines, et repuerascentes, atque iterum infantes facti, Abecedaria ejusdem in manibus habere dignentur. In interpretatione autem ejus eruenda atque enucleanda nulli operæ pareant, sed strenue procedant, persistant, immoriantur. Cum igitur in Instauratione nostra Historiam naturalem, qualis sit in ordine ad finem nostrum, in tertia operis parte collocaverimus; hanc rem prævertere et statim aggredi visum est. Etsi enim haud pauca, eaque ex præcipuis, supersint in Organo nostro absolvenda, tamen consilium est, universum opus Instaurationis potius promovere in multis, quam perficere in paucis; hoc perpetuo, maximo eum ardore (qualem Deus mentibus, ut plane confidimus, addere solet) appetentes, ut quod adhuc nunquam tentatum sit, id ne jam frustra tentetur. Simul subiit animum illa cogitatio: spargi proculdubio per Europam complura ingenia, capacia, libera, excelsa, subtilia, solida, constantia. Quid si quis, tali ingenio præditus, rationem et usum Organi nostri capiat, probet? Tamen non habet quid agat, nec quomodo se ad philosophiam comparet aut accingat. Si esset res, quæ lectione librorum philosophicorum, aut disputatione, aut meditatione perfici posset, sufficeret fortasse ille, quisquis sit, et abunde illud præstaret. Quod si ad historiam naturalem et experimenta artium illum remittimus (id quod facimus) hæret, non est instituti ejus, non otii, non impensæ. Atqui non est postulandum nobis, ut quis vetera dimittat, antequam in possessionem meliorum indueatur. Postquam autem naturæ et artium Historia, fidelis et copiosa, collecta et digesta fuerit, atque veluti ante oculos hominum posita et explicata; non tenuis est spes, ingenia, de quibus diximus, grandia (qualia et in antiquis philosophis viguerunt, et adhuc non raro reperiuntur) cum tantæ antehac fuerint efficaciæ, ut veluti ex scalmo aut concha (rara scilicet experientia et frivola) navicellas quasdam philosophiæ, admirabili structura quoad opificium, ædificaverint; multo magis postquam sylvam et materiem nacta sint, solidiores structuras excitatura; idque licet via veteri pergere malint, nec via nostri Organi (quæ, ut nobis videtur, aut unica est, aut optima) uti. Itaque hue res redit, ut Organum nostrum, etiamsi fuerit absolutum, absque Historia naturali non multum; Historia naturalis, absque Organo, non parum instaurationem scientiarum sit provectura. Quare omnino, et ante omnia, in hoc incumbere satius et consultius visum est. Deus universi conditor, conservator, instaurator, hoc opus, et in ascensione ad gloriam suam, et in descensione ad bonum humanum pro sua erga homines benevolentia et miserieordia, protegat et regat, per Filium suum unicum, nobiscum Deum.

NORMA HISTORIÆ PRÆSENTIS.

Quamvis sub finem ejus partis Organi nostri, quæ edita est, præcepta de Historia naturali et experimentali conscripserimus; visum est tamen hujus, quam nunc aggredimur, Historiæ normam et figuram, et accuratius describere et succinctius. Titulis in catalogo comprehensis, qui pertinent ad concreta, titulos de naturis abstractis (quarum ibidem, ut historiæ reservatæ, mentionem fecimus) superaddimus. Hi sunt materiæ schematismi diversi, sive formæ primæ classis, motus simplices. Summæ motuum, mensuræ motuum, alia quædam. De his Abecedarium novum confecimus, et sub finem hujus voluminis collocavimus.

Titulos (cum ad omnes nullo modo sufficiamus) non ex ordine, sed ex delectu sumpsimus; quorum scilicet inquisitio, aut propter usum erat gravissima, aut propter copiam experimentorum maxime commoda, aut propter obscuritatem rei maxime difficilis et nobilis, aut propter discrepantiam titulorum inter se, latissime patens ad exempla.

In titulis singulis, post aditum quendam aut præfationem, statim topica particularia, sive articulos inquisitionis proponimus, tum ad lumen inquisitionis præsentis, tum ad provocationem futuræ. Domini enim quæstionum sumus, rerum non item. Neque tamen quæstionum ordinem in Historia ipsa præcise observamus, ne impedimento sit quod pro auxilio adhibetur.

Historia et experimenta omnino primas partes tenent. Ea, si enumerationem et seriem rerum particularium exhibeant, in tabulas conficiuntur; aliter seorsum excipiuntur.

Cum historia et experimenta sæpissime nos deserant, præsertim lucifera illa, et instantiæ crucis, per quas de veris rerum causis intellectui constare possit; mandata damus de experimentis novis, quantum prospicere animo possumus, aptis ad id, quod quæritur. Hæc mandata tanquam Historia designata sunt. Quid enim aliud nobis, primo viam ingredientibus, relinquitur?

Experimenti alicujus subtilioris modum, quo usi sumus, explicamus, ne error subsit; utque alios ad meliores et magis exactos modos excogitandos excitemus.

Monita et cautiones de rerum fallaciis, et, qui in inquirendo et inveniendo possint occurrere, erroribus et scrupulis aspergimus; ut phantasmata omnia, quantum fieri potest, tanquam exorcismo fugemus.

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Observationes nostras super historiam et experimenta subteximus, ut interpretatio naturæ magis sit in procinctu.

Commentationes, et tanquam rudimenta quædam interpretationis de causis, parce, et magis suggerendo quid esse possit, quam definiendo quid sit, interponimus.

Canones, sed tamen mobiles, sive axiomata inchoata, quæ nobis inquirentibus, non pronunciantibus, se offerunt, præscribimus et constituimus. Utiles enim sunt, si non prorsus veri.

Utilitatis humanæ nunquam obliti (licet lux ipsa dignior sit iis, quæ a luce monstrantur) vellicationes de practica, attentioni et memoriæ hominum subjicimus; cum nobis constet talem et tam infelicem esse hominum stuporem, ut quandoque res ante pedes positas, nisi moniti, non videant, sed præterеant.

Opera et res impossibiles, aut saltem adhuc non inventas, quæ sub singulis titulis cadunt, proponimus; atque una ea, quæ jam inventa sunt et in hominum potestate, atque impossibilibus illis, et non inventis, sunt proxima et maxime cognata, subjungimus; ut simul et industria humana excitetur, atque animi addantur.

Patet ex antedictis, Historiam præsentem, non tantum tertiæ partis Instaurationis vices supplere, sed præparationem esse non contemnendam ad quartam, propter titulos ex Abecedario, et topica; et ad sextam, propter observationes majores, commentationes, et canones.

HISTORIA VENTORUM.

ADITUS, SIVE PREFÆTIO.

Venti humanæ genti alas addidcrunt. Eorum enim dono feruntur homines et volant; non per aërem certe, sed per maria; atque ingens patet janua commercii, et fit mundus pervius. Terræ autem (quæ gentis humanæ sedes est et domicilium) scopæ sunt: eamque, atque simul aërem ipsum, everrunt et mundant. Attamen et mare infamant, alioqui tranquillum et innoxium: neque alias sine maleficio sunt. Motum, absque opera humana, cient magnum et vehementem; unde et ad navigandum et ad molendum, veluti operarii, conducti sunt; et ad multo plura adhiberi possunt, si humana non cesset diligentia. Natura ipsorum inter secreta et abdita reponi solet; nec mirum, cum nec aëris natura et potestas cognita quoquo modo sit, cui famulantur et parasitantur venti, ut (apud poëtas) Æolus Junoni. Primariæ creaturæ non sunt, nec ex operibus sex dierum: quemadmodum nec reliqua meteora quoad actum, sed post nati ex ordine creationis.

TOPICA PARTICULARIA:

SIVE ARTICULI INQUISITIONIS DE VENTIS.

Nomina ventorum.

1. Describito ventos ex diligentia nautica, et imponito nomina ipsis, sive vetera, sive nova, modo constantia.

Venti vel generales sunt, vel stati, vel asseclæ, vel liberi. Generales voco, qui semper flant; status, qui certis temporibus; asseclas, qui frequentius; liberos, qui indifferenter.

Venti generales.

2. An sint venti aliqui generales, atque ipsissimi motus aëris; et, si sint, in qua consecutione motus, et in quibus locis spirent?

Venti stati.

3. Qui venti anniversarii sint, aut redeuntes per vices, et in quibus regionibus? An inveniatur ventus aliquis ita præcise status, ut redeat regulariter ad dies certos et horas, instar æstus maris?

Venti asseclæ.

4. Qui venti sint asseclæ, et familiares regionum; qui temporum, in iisdem regionibus; qui verni; qui æstivales; qui autumnales; qui brumales; qui æquinoctiales; qui solstitiales; qui matutini, meridiani, vespertini, nocturni?

5. Quales sint venti marini, quales qui spirant a continente? Differentias autem marinorum et terrestrium diligenter excipito, tam eorum qui in terra et mari, quam eorum qui a terra et mari.

Venti liberi.

6. An non spirent venti ex omni plaga cœli?

Venti non multo plus plagis cœli, quam qualitatibus, variant. Alii vehementes, alii lenes; alii constantes, alii mutabiles; alii calidi, alii frigidi; alii humectant magis et solvunt, alii desiccant et constipant; alii congregant nubes, et sunt pluviosi vel etiam procellosi, alii dissipant, et sunt sereni.

Qualitates ventorum diversæ.

7. Inquirito et narrato, qui sint venti uniuscujusque speciei ex prædictis, et quomodo varient secundum regiones et loca?

Origines locales ventorum triplices; aut dejiciuntur ex alto, aut emanant a terra, aut conflantur in ipso corpore aëris.

Origines locales ventorum.

8. Secundum has tres origines de ventis inquirito. Qui scilicet ex ipsis dejiciantur de media (quam vocant) regione aëris; qui vero exspirent e cavis terræ, sive illi erumpant confertim, sive efflent insensibiliter et sparsim, et postea glomerent ut rivuli in fluvium: qui denique generentur passim ex tumoribus sive expansionibus aëris proximi?

Neque generationes ventorum originales tantum: sunt et accidentales, ex compressionibus

aëris scilicet, et percussionibus, et repercussionibus ejus.

Generationes accidentales ventorum.

9. De hujusmodi ventorum generationibus accidentalibus inquirito. Generationes ventorum proprie non sunt; etenim augent et fortificant ventos potius, quam producunt et excitant.

De communitate ventorum hactenus. Reperiuntur autem venti rari et prodigiosi, quales sunt Præster, Turbo, Ecnephias; hi super terram: at sunt et subterranei, quorum alii sunt vaporosi et mercuriales, ii pereipiuntur in mineris; alii sulphurei, illi emittuntur, nacti exitum in terræ motibus, aut etiam effervescunt ex montibus ardentibus.

Venti extraordinarii et flatus repentini.

10. De hujusmodi ventis, raris et prodigiosis, atque adeo de omnibus ventorum miraculis inquirito.

A speciebus ventorum transeat inquisitio ad confacientia ad ventos (ita enim loqui volumus, quia vocabulum efficientis plus significat, vocabulum concomitantis minus quam intelligimus) atque ad ea, quæ ventos putantur excitare aut sedare.

Confacientia ad ventos, et excitantia et sedantia ipsos.

11. Circa astrologica de ventis inquirito paree, nec de accuratis schematibus cœli curato; tantummodo observationes manifestiores de ventis ingruentibus circa exortus aliquorum astrorum, aut circa eclipses luminarium, aut conjunctiones planetarum negligito; nec minus quatenus pendent ex viis solis aut luuæ.

12. Quid confaciant meteora diversorum generum ad ventos? Quid terræ motus, quid imbres, quid concursus ventorum ad invicem? Concatenata enim sunt ista, et alterum alterum trahit.

13. Quid confaciant ad ventos, vaporum et exhalationum diversitas? Et quæ ex ipsis sint magis generativa ventorum, et quatenus natura ventorum sequatur hujusmodi materias suas?

14. Quid confaciant ea, quæ hic in terra sunt, aut fiunt, ad ventos; quid montes, et solutiones nivium in ipsis; quid moles glaciales, quæ in mari innatant et deferuntur alicubi; quid differentiæ soli aut terræ, (modo hoc fuerit per tractus majores,) veluti paludes, arenæ, sylvæ, campestria; quid ea, quæ hic apud homines aguntur, veluti incensiones ericæ, et similium, ad culturam agrorum; incensiones segetum aut villarum in bellis; desiccationes paludum; displosiones continuæ bombardarum; sonitus campanarum simul in magnis urbibus; et similia? Festucæ certe sunt res nostræ, sed tamen aliquid possunt.

15. De omnimodis excitationibus aut sedationibus ventorum inquirito, sed parce de fabulosis aut superstitiosis.

A confacientibus ad ventos transeat inquisitio ad tuquirendos limitea ventorum; de altitudine, extensione, duratione eorum.

Limites ventorum.

16. Inquirito diligenter de altitudine sive elevatione ventorum; atque si sint fastigia montium, ad quæ venti non aspirent; aut si conspiciantur nubes quandoque stare et non movere, flantibus eodem tempore ventis fortiter hic in terra.

17. Inquirito diligenter de spatiis, quæ venti deprehensi aunt simul occupare, et ad quos terminos? Exempli gratia, si auster flaverit tali loco, an constet quod eodem tempore aquilo flaverit ab illinc milliaribus decem? Contra, in quantas angustias venti redigi possint, ita ut fluant venti (id quod fieri videtur in turbinibus uonnullis) tanquam per canales.

18. Inquirito ad quod tempus, vel maximum, vel medium, vel minimum, continuari soleant venti, et deinde flaccescere et tanquam exspirare: qualia etiam esse soleat ortus et inceptio ventorum, qualis languor et cessatio; subito, gradatim, quoquo modo?

A limitibus ventorum transeat inquisitio ad successiones ventorum, vel inter se vel respectu pluviæ et imbrium: cum enim choreas ducant, ordinem saltationis nosse jucundum fuerit.

Successiones ventorum.

19. An sit aliqua regula, aut observatio paulo certior, de successionibus ventorum ad invicem, sive ea sit in ordine ad motum solis, sive alias: et si sit, qualis sit illa?

20. Circa successionem et alternationem ventorum et pluviæ inquirito; cum illud familiare et frequens sit, ut pluvia sedet ventos, venti compescant et dissipent pluviam.

21. An post certam periodum annorum redintegretur successio ventorum; et si ita sit, quæ sit ea periodus?

A successionibus ventorum transeat inquisitio ad motus ipsorum. Motus ventorum septem inquisitionibus absolvuntur; quorum tres superioribus articulis contineutur, quatuor adhuc manent intactæ: nam de motu ventorum dispertito per plagas cœli inquisitum est. Etiam de motu trium linearum, sursum, deorsum, lateraliter. Etiam de accidentali motu compressionum. Restant motus quartus progressivus, quintus undulationis, sextus conflictus, septimus in organis et machinis humanis.

Motus diversi ventorum.

22. Cum progressus sit semper a termino, de loco primi ortus, et tanquam fontibus alicujus venti, quantum fieri potest, diligenter inquirito. Siquidem videntur venti famæ similes. Nam licet tumultuentur et percurrant, tamen caput inter nubila condunt. Item de progressu ipso: exempli gratia, si boreas vehemens, qui flaverit Eboraci ad talem diem aut horam, flaverit Londini biduo post?

23. De undulatione ventorum inquisitionem ne omittito. Undulationem vocamus eum motum, quo ventus ad parva intervalla intenditur et remittitur, tanquam undæ aquarum: quarum vices optime percipiuntur ex auditu in ædibus. Eo autem magis notato diligenter differentias undulationis, sive sulcationis inter aërem et aquam; quia in aëre et ventis deest motus gravitatis, qui pars magna est undulationis in aquis.

24. De conflictu et concursu ventorum flantium ad idem tempus diligenter inquirito. Primo, utrum fient simul plures venti originales, non dicimus reverberantes? Et, si hoc ita sit, quales euripos in motu, quales rursus condensationes et alterationes in corpore aëris gignant?

25. An venti alii eodem tempore flent superius,

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alii hic apud nos in imo? Quandoquidem observatum est a nonnullis, interdum nubes ferri in contrarium versionis pinnaculi: etiam nubes ferri forti aura, cum hic apud nos fuerit summa tranquillitas.

26. Fiat descriptio diligens admodum et particularis motus ventorum in impulsu navium per vela.

27. Fiat descriptio motus ventorum in velis molendinorum ad ventum; in vulatu accipitrum et avium, etiam in vulgaribus et ludieris, veluti signorum explicatorum, draconum volantium, duellorum ad ventum, etc.

A motibus ventorum transeat inquisitio ad vim et potestates ipsorum.

Potestates ventorum. 28. Quid possint et agant venti circa currentes et æstus aquarum, et circa detentiones, immissiones, et inundationes ipsarum?

29. Quid circa plantas et insecta, inducendo locustas, erucas, malos rores?

30. Quid circa purgationem et infectionem aëris, et circa pestilentias, morbos, et affectus animalium?

31. Quid circa delationem specierum (quas vocant) spiritalium, ut sonorum, radiorum, et similium?

A potestatibus ventorum transeat inquisitio ad prognostica ventorum, non solum propter usum prædictionum, sed quia manu ducunt ad causas: prognostica enim aut præparationes rerum monstrant, antequam perducantur ad actum; aut inchoationes, antequam perducantur ad sensum.

Prognostica ventorum. 32. Colligantur, cum diligentia bona, prognostica ventorum omnigena, (præter astrologica, de quibus superius diximus quatenus sint inquirenda,) sive petantur ex meteoricis, sive ex aquis, sive ex instinctu animalium, aut quovis alio modo.

Postremo inquisitionem claudito, inquirendo de imitamentis ventorum, sive in naturalibus sive in artificialibus.

Imitamenta ventorum. 33. Inquirito de imitamentis ventorum in naturalibus; qualia sunt flatus in corporibus animalium, flatus in receptaculis distillationum, etc.

Inquirito de auris factis et ventis artificialibus, ut fullibus, refrigeratoriis in cœnaculis, etc.

Articuli tales sint. Neque nobis dubium est, quin ad nonnullos horum responderi non possit secundum copiam experientiæ, quam habemus. Verum quemadmodum in causis civilibus, quid causa postulet ut interrogetur, noverit jurisconsultus bonus; quid testes respondere possint, non norit: idem nobis circa Historiam naturæ accidit. Posteri cætera viderint.

NOMINA VENTORUM.

Ad Art. 1. Nomina ventis, potius ex ordine et gradibus numerata, quam ex antiquitate propria, imponimus: hoc perspicuitatis et memoriæ gratia. Sed vocabula antiqua adjicimus quoque propter suffragia auctorum veterum, ex quibus cum haud pauca (licet anxio quodam judicio) exceperimus, non agnoscentur fere illa, nisi sub nominibus quibus illi usi sunt. Partitio autem generalis ea esto: Ut sint venti cardinales, qui spirant a cardinibus mundi: semicardinales, qui in dimidiis: mediani, qui in intermediis: etiam ex intermediis mediani majores vocentur, qui in quadris; minores reliqui. Particularis autem divisio ea est, quæ sequitur.

CARDIN.	CARDIN.
Boreas.	Eurus, sive Subsolanus.
Boreas 1. ad Eurum.	Eurus 1. ad Austrum.
MED. MAJ.	MED. MAJ.
Boreas 2. ad Eurum, sive Aquilo.	Eurus 2. ad Austrum, sive Vulturnus.
Boreas 3. ad Eurum, sive Meses.	Eurus 3. ad Austrum.
SEMICAR.	SEMICAR.
Euro-Boreas.	Euro-Auster.
Eurus 1. a Borea.	Auster 1. ab Euro.
MED. MAJ.	MED. MAJ.
Eurus 2. a Borea, sive Cæcias.	Auster 2. ab Euro, sive Phœnicias.
Eurus 3. a Borea.	Auster 3. ab Euro.
CARDIN.	CARDIN.
Auster, sive Notus.	Zephyrus, sive Favonius.
Auster 1. ad Zephyrum.	Zephyrus 1. ad Boream.
MED. MAJ.	MED. MAJ.
Auster 2. ad Zephyrum, sive Libonotus.	Zephyrus 2. ad Boream, sive Corus.
Auster 3. ad Zephyrum.	Zephyrus 3. ad Boream.
SEMICAR.	SEMICAR.
Zephyro-Auster, sive Lybs.	Zephyro-Boreas.
Zephyrus 1. ab Austro.	Boreas 1. a Zephyro, sive Thrascias.
MED. MAJ.	MED. MAJ.
Zephyrus 2. ab Austro, sive Africus.	Boreas 2. a Zephyro, sive Circius.
Zephyrus 3. ab Austro.	Boreas 3. a Zephyro.

Sunt et alia ventorum nomina Apheliotes, Argestes, Olympias, Sciron, Hellespontius, Iapyx. Ea nil moramur. Satis sit nomina ventorum ex ordine et distributione plagarum cœli fixa imposuisse. In interpretatione auctorum non multum ponimus, cum in ipsis auctoribus parum sit.

VENTI LIBERI.

Ad Art. 6. 1. Non est plaga cœli, unde ventus non spiret: quin si plagas cœli in tot partes dividas, quod sunt gradus in horizonte, invenias ventos aliquando alicubi a singulis flantes.

2. Sunt regiones totæ, in quibus non pluit, aut raro admodum: ut non sunt regiones, ubi non flent venti, et sæpius.

VENTI GENERALES.

Ad Art. 2. De ventis generalibus phænomena rara. Nil mirum, cum intra tropicos præcipue perspiciantur loca damnata apud antiquos.

Constat navigantibus inter tropicos libero æquore flare ventum constantem et jugem (brizam vocant nautæ) ab oriente in occidentem. Is non ita segnis est, quin partim flatu proprio, partim regendo currentem maris, id efficiat, ut nequeant navigantes versus Peruviam eadem redire, qua proficiscuntur, via.

2. In nostris maribus Europæ percipitur cœlo sereno et sudo, et cessantibus ventis particularibus, aura quædam leuis ab oriente solisequa.

3. Recipit observatio vulgaris nubes sublimiores ferri plerumque ab oriente in occidentem; idque eum, iisdem temporibus, circa terram aut tranquillitas sit, aut ventus diversus. Id si non semper faciant, poterit in causa esse, quod venti particulares quandoque flant in sublimi, qui ventum istum generalem obruunt.

Monitum. Si quis sit talis ventus generalis ex ordine motus cœli, is non adeo firmus est, quin ventis particularibus cedat. Manifestior autem est intra tropicos propter circulos, quos conficit, majores; etiam in sublimi, propter eandem causam et propter cursum liberum. Quamobrem, si hic extra tropicos et juxta terram (ubi mollis admodum et seguis est) eum deprehendere voles, fiat experimentum in aëre libero, et in summa tranquillitate, et in locis altis; et in corpore valde mobili, et tempore pomeridiano; quia per id tempus ventus orientalis particularis parcius flat.

Mandatum. Fiat diligens observatio circa pinnaeula, et ejusmodi flabella, in fastigiis turrium et templorum, annon in maximis tranquillitatibus flent perpetuo versus occidentem?

Phænomenon obliquum. 4. Constat eurum, in Europa nostra, esse ventum desiccantem et aerem, zephyrum contra humectantem et almum. Annon hoc fit, quia (posito quod aër moveat ab oriente in occidentem) necesse est ut eurus, qui moveat in eadem consecutione, aërem dissipet et attenuet, unde fit aër mordax et siccus; zephyrus autem, qui in contraria, aërem in se vertat et condenset, unde fit obtusior, et demum humidus.

Phænomenon obliquum. 5. Consulito inquisitionem de motu et fluxu aquarum, utrum illæ moveant ab oriente ad occidentem. Nam si extrema hoc motu gaudeant, cœlum et aquæ; parum abest quin aër, qui intermedius est, ex eodem participet.

Monitum. Phænomena duo, proxime posita, obliqua appellamus, quia rem designatam non recta monstrant, sed per consequens; id quod (cum deest copia phænomenorum rectorum) etiam avide recipimus.

Mandatum. Quod briza illa inter tropicos lucnlenter spiret, res certa, causa ambigua. Possit ea esse, quia aër, more cœli, movetur; sed extra tropicos, quasi imperceptibiliter, propter circulos minores; intra manifesto, propter circulos majores quos conficit. Possit alia esse, quia calor omnem aërem dilatat, nec se priore loco contineri patitur. Ex dilatione autem aëris necessario fit impulsio aëris contigui, qnæ brizam istam pariat prout progreditur sol. Sed illa intra tropicos, ubi sol est ardentior, insignior est; extra, fere latet. Videtur esse instantia crucis ad ambiguitatem istam tollendam, si inquiratur, utrum briza noctu flet, an non? Rotatio enim aëris etiam noctu manet, at calor solis non item.

6. At certum est illam noctu non flare, sed mane, aut etiam aurora adulta. Nihilominus non determinat illa instantia quæstionem. Nam condensatio aëris nocturna, præsertim in illis regionibus, ubi nox et dies non magis pares sunt spatiis, quam differentes calore et frigore, possit motum illum naturalem aëris (qui leuis est) hebetare et confundere.

7. Si aër participet ex motu cœli, sequitur non tantum, quod eurus cum motu aëris concurrat, zephyrus concertet; verum etiam quod boreas tanquam ab alto spiret, auster tanquam ab imo, in hemisphærio nostro, ubi polus antarcticus sub terra est, arcticus elevatur; idque etiam ab antiquis notatum est, sed titubanter et obscure; optime autem convenit cum experientia moderna, quia briza (quæ possit esse motus aëris) non est eurus integer, sed euroaquilo.

VENTI STATI.

Ad Art 3. Connexio. Ut in inquisitione de ventis generalibus homines sectomia passi sunt, ita in illa de ventis statis vertiginem: de illa silent, de hac sursum et deorsum sermones faciunt inconditos. Ignoscendum hoc magis, quod varia res est: quia stati venti cum locis permutantur, ut non iidem in Ægypto, Græcia, Italia spirent.

1. Esse alicubi statos ventos, etiam nomen impositum declarat; ut et nomen alterum etesiarum, quod anniversarios sonat.

2. Apud antiquos inter causas inundationis Nili ascripta est, quod eo anni tempore venti etesiæ (aquiliones scilicet) flarent, qui cursum fluvii in mare inhibebant et retrorsum volvebant.

3. Inveniuntur in mari currentes, qui nec naturali motui oceani, nec decursui ex locis magis elevatis, nec angustiis ex litoribus adversis, aut promontoriis excurrentibus attribui possint; sed plane reguntur a ventis statis.

4. Columbum, qui nolunt a relatione nauclcri Hispani, et levius putant, ab obscuris antiquitatis vestigiis et auris, tam certam et fixam de Indiis occidentalibus opinionem concepisse, huc se convertunt, quod a statis ventis ad litora Lusitaniæ conjecerit continentem esse a parte occidentis: res dubia, nec admodum probabilis, cum ventorum itinerarium ad tam longos tractus vix attingat: magnus interim honos huic inquisitioni, si qui axiomati aut observationi ex iis, quas multas complectitur, inventio novi orbis debeatur.

5. Ubicunque siti sunt montes alti et nivales, ab ea parte flant venti stati ad tempus quo nives solvuntur.

6. Arbitror et a paludibus magnis, quæ aquis cooperiuntur hieme, spirare ventos statos, sub tempora, quibus a calore solis siccari cœperint; sed de hoc mihi compertum non est.

7. Ubicunque generationes vaporum fiunt in abundantia, idque certis temporibus; ibi scias ventos statos iisdem temporibus orituros.

8. Si venti stati flent alicubi, nec causa eorum reperiatur in propinquo; scias ventos hujusmodi statos peregrinos esse, et a longe venire.

9. Notatum est ventos statos noctu non flare, sed tertia ab ortu solis hora insurgere: sunt certe hujusmodi venti, veluti ex longo itinere defessi, ut condensationem aëris nocturnam vix perfringant, at post exortum solis excitati paulisper procedant.

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10. Omnes stati venti (præterquam ex locis propinquis) imbecilli sunt, et ventis subitis se submittunt.

11. Sunt complures venti stati, quos nos non percipimus aut observamus, propter infirmitatem ipsorum, unde a ventis liberis obruuntur: ideo vix notantur hieme, cum venti liberi vagantur magis; sed potius versus æstatem, cum venti illi erratici magis deficiant.

12. In partibus Europæ ex ventis statis hi potissimi sunt. Aquilones a solstitio; suntque exortus caniculæ, tum prodromi, tum sequaces: zephyri ab æquinoctio autumnali: curi a verno: nam de brumali solstitio minus curandum propter hiemis varietates.

13. Venti ornithii sive aviarii, qui nomen traxerunt quod aves a regionibus gelidis transmarinis regionibus apricis immittant, nihil pertinent ad ventos statos, quia illi tempore sæpius fallunt: aves autem eorum commoditatem, sive citius sive tardius flent, exspectant: etiam non raro postquam flare paululum inceperint et se subinde verterint, destituuntur aves, et merguntur in pelago, aliquando in naves decidunt.

14. Præcisus reditus ventorum ad diem et horam, instar æstus maris, non invenitur. Designant quandoque auctores nonnulli diem; sed potius ex conjectura, quam ex observatione constante.

VENTI ASSECLÆ.

Ad Art. 4. et 5. Connexio.

Ventorum asseclarum vocabulum nostrum est: quod imponere visum est, ne aut pereat observatio circa ipsos, aut confundatur. Sensus talis est: divide, si placet, annum in tres, quatuor, quinque partes, in aliqua regione. Quod si ventus aliquis ibi flet, duas, tres, quatuor portiones ex ipsis; ventus contrarius unam; illum ventum, qui frequentius flat, ejus regionis asseclam nominamus. Sic de temporibus.

1. Auster et boreas asseclæ mundi sunt: frequentius enim per universum spirant illi, cum suis sectionibus, quam eurus et zephyrus cum suis.

2. Omnes venti liberi (non stati) magis asseclæ hiemus sunt, quam æstatis, maxime autem autumni et veris.

3. Omnes venti liberi potius asseclæ sunt regionum extra tropicos, atque etiam circulos polares, quam intra; in regionibus enim torridis et conglaciatis plerumque parcius spirant, in mediis frequentius.

4. Etiam omnes venti liberi, præsertim fortiores ex ipsis, flant sæpius et intensius mane et vesperi, quam meridie et noctu.

5. Venti liberi in regionibus fistulosis et cavernosis frequentius spirant quam in firmis et solidis.

Mandatum.

Cessavit fere humana diligentia in observatione ventorum asseclarum in regionibus particularibus, quod tamen fieri debuit, et ad multa utilis foret. Memini me a mercatore quodam, prudenti viro, qui ad Terram piscationis coloniam duxerat, ibique hiemarat, causam quæsivisse cur regio illa tam impense frigida haberetur, cum clima satis benignum esset. Respondit, rem esse fama aliquanto minorem, causam autem duplicem. Unam, quod moles glaciales a currenti maris Scythici juxta ea littora deveherentur. Alteram (quam longe potiorem duxit) quod longe pluribus anni partibus spiraret apud eos zephyrus, quam eurus: quod etiam facit apud nos (inquit); sed apud illos a continenti, et gelidus; apud nos a mari, et tepidus. Quod si (addidit) tam frequenter et diu spiraret in Anglia eurus, quam apud eos zephyrus, longe forent intensiora frigora apud nos, et paria illis quæ ibi fiunt.

6. Zephyri sunt asseclæ horarum pomeridianarum: declinante enim sole frequentius spirant venti ab occidente, ab oriente rarius.

7. Auster noctis asseela est: nam noctu et sæpius oritur, et flat vehementius. Boreas autem interdiu.

8. Asseclarum vero maris, et continentis, multæ et magnæ sunt differentiæ. Ea præcipue, quæ Columbo ansam præbuit inveniendi novi orbis: quod venti marini stati non sunt, terrestres autem maxime. Cum enim abundet vaporibus mare, qui ubique fere indifferenter adsunt, ubique etiam generantur venti, et magna inconstantia huc illuc feruntur, cum certas origines et fontes non habeant. At terra ad materiam ventorum valde inæqualiter se habet; cum alia loca ad ventos pariendos et augendos magis efficacia sint; alia magis destituta. Itaque flant fere a parte fomitum suorum, et inde directionem sortiuntur.

9. Non satis constat sibi Acosta. Ait ad Peruviam et maritima maris australis fere per totum annum spirare austros. Idem alibi ait ad eas oras spirare potissimum ventos marinos. At auster illis terrestris est, ut et boreas et eurus, tantumque zephyrus est illis marinus. Sumendum, quod certius ponit, hoc est, austrum esse ventum asseclam et familiarem earum regionum; nisi forte ex nomine maris australis vel phantasiam vel modum loquendi corrupit, intelligens zephyrum per austrum, quod a mari australi spiret. At mare, quod vocant, australe, proprie australe non est, sed tanquam oceanus secundus occidentalis; quando simili cum Atlantico situ exporrigatur.

10. Marini venti sunt proculdubio terrestribus humidiores, sed tamen puriores, quique facilius et æqualius cum aëre puro incorporentur. Terrestres enim male coagmentati et fumei. Neque opponat quispiam eos debere esse, propter salsuginem maris, crassiores: natura enim terrestris salis non surgit in vaporibus.

11. Tepidi vel gelidi sunt venti marini, pro ratione qualitatum duarum prædictarum, humiditatis et puritatis. Humiditate enim frigora mitigant, (siccitas siquidem utrumque, et calorem et frigus, intendit,) at puritate refrigerant. Itaque extra tropicos, tepidi; intra, gelidi.

12. Arbitror ubique ventos marinos asseclas esse regionum (præsertim maritimarum) singularium; frequentius scilicet spirare ventos a parte ubi colloeatur mare, propter copiam longe uberiorem materiæ ad ventos in mari, quam in terra; nisi forte sit aliquis ventus status, spirans a terra ex causa peculiari. Nemo autem confundat ventos statos cum ventis asseclis, cum asseclæ semper frequentiores sint, stati sæpius rariores: id tamen utrisque commune est, quod venti spirent a parte fomitum suorum.

13. Vehementiores plerumque sunt venti marini,

quam terrestres; ita tamen, ut, cum cessent, major sit malacia in medio mari, quam ad litora; adeo ut nautæ quandoque ament potius litorum obliquitates premere, quam urgere altum, ad evitandas malacias.

14. Spirant a mari ad litora venti tropæi sive versarii, qui scilicet, postquam paulisper progressi sunt, subito vertuntur. Omnino est quædam refractio inter auras maris et auras terræ, et inæqualitas. Omnis autem inæqualitas aëris est inchoatio quædam venti: maxime autem fiunt tropæi et euripi ventorum ubi mare sinuat.

15. Spirant quædam auræ plerumque circa omnes aquas majores; potissimum autem sentiuntur mane; at magis circa fluvios, quam in mari, propter differentiam auræ terræ et auræ aquæ.

16. In locis proximis juxta mare flectunt fere se arbores et incurvant, quasi aversantes auras maris: neque tamen malacia est; sed venti maritimi, ob humiditatem et densitatem, sunt tanquam ponderosiores.

QUALITATES ET POTESTATES VENTORUM.

Ad Art. 7. 27, 28, 29, 30, 31, Connexio.

Circa qualitates et potestates ventorum observatum est ab hominibus non diligenter et varie: nos certiora excerpimus; reliqua, ut levia, ipsis ventis permittemus.

1. Auster pluviosus, boreas serenus apud nos sunt: alter nubes congregat et fovet, alter dissipat et discutit. Itaque poëtæ, cum narrant de diluvio, fingunt eo tempore boream in carcere conclusum; austrum cum amplissimis mandatis emissum.

2. Zephyrus apud nos pro aureæ ætatis vento habitus est, qui comes esset perpetui veris, et mulceret flores.

3. Paraeelsi schola, cum tribus suis principiis, etiam in templo Junonis (aëre scilicet) locum quærerent, tres collocarunt; eurum locum non repererunt.

> "Tincturis liquidum qui mercurialibus austrum,
> Divitis et zephyri rorantes sulphure venas,
> Et boream tristi rigidum sale."—

4. At nobis in Britannia eurus pro malefico habetur, ut in proverbio sit, "eurum neque homini neque bestiæ propitium esse."

5. Auster a præsentia solis, boreas ab absentia spirat in hemisphærio nostro: eurus in consecutione motus aëris, zephyrus in contrarium ubique: zephyrus a mari, eurus a continente; plerumque in Europa et Asia occidentali. Hæ sunt differentiæ ventorum maxime radicales, unde plurimæ ex qualitatibus et potestatibus ventorum revera pendent.

6. Auster minus anniversarius est et status, quam boreas, sed magis vagus et liber; et quando est status, tam lenis est ut vix pereipiatur.

7. Auster magis humilis est et lateralis, boreas celsior et spirans ex alto; neque hoc de elevatione et depressione polari dicimus, de qua supra; sed quod origines suas habeat plerumque magis in vicino auster, magis in sublimi boreas.

8. Auster nobis pluviosus, (ut jam dictum est,) Africæ vero serenus, sed magnos immittens fervores, non frigidus, ut alii dixerunt. Est tamen Africæ satis salubris; at nobis, si flaverit paulo diutius in sudo, absque pluvia, auster valde pestilens est.

9. Auster et zephyrus non generant vapores, sed spirant a partibus, ubi maxima est copia ipsorum propter auctum calorem solis, qui vapores elicit, ideoque sunt pluviosi. Quod si spiraverint a locis siccioribus et jejunis a vaporibus, sunt sereni; sed tamen aliquando puri, aliquando æstuosi.

10. Videntur hic apud nos auster et zephyrus fœderati, suntque tepidi et humidi; at ex altera parte affines sunt boreas et eurus, suntque frigidi et sicci.

11. Auster et boreas (quod et antea attigimus) frequentius spirant, quam eurus et zephyrus, quia magna est inæqualitas vaporum ex illis partibus propter absentiam et præsentiam solis; at orienti et occidenti sol tanquam adiaphorus est.

12. Auster saluberrimus marinus, a continente magis morbidus; contra, boreas a mari suspectus, a terra sanus; etiam frugibus et stirpibus auster marinus valde benignus, fugans rubigines et alias pernicies.

13. Auster lenior non admodum cogit nubes, sed sæpe serenus est, præsertim si sit brevior; sed flans commotius aut diutius, facit cœlum nubilum et inducit pluviam; sed potius cum desinat aut flaccescere incipiat, quam a principio aut in ipso vigore.

14. Cum auster aut oritur aut desistit, fiunt fere mutationes tempestatum a sereno ad nubilum, aut a calido ad frigidum; et e contra, boreas sæpe et oritur et desinit, priore tempestate manente et continuata.

15. Post pruinas, atque etiam nives paulo diuturniores, non alius fere ventus quam auster spirat, tanquam facta concoctione frigorum, quæ tum demum solvuntur, neque propterea semper sequitur pluvia, sed fit hoc etiam in regelationibus serenis.

16. Auster et frequentius oritur, et fortius spirat noctu, quam interdiu, præsertim noctibus hibernis. At boreas, si noctu oriatur, (quod contra suam consuetudinem est,) non ultra triduum fere durat.

17. Austro flante majores volvuntur fluctus quam borea, etiam quando pari aut minore impetu spirat.

18. Spirante austro fit mare cœruleum et magis lucidum, borea contra atrius et obscurius.

19. Cum aër subito fit tepidior, denotat interdum pluviam: rursus alias, cum aura subito fit gelidior, pluviam præmonstrat. Sequitur vero hoc naturam ventorum: nam si flante austro aut euro intepescit aër, pluvia in propinquo est, itidemque cum flante septentrione aut zephyro refrigescit.

20. Auster flat plerumque integer et solitarius. At borea, et præcipue cæcia et eoro flantibus, sæpe contrarii et alii diversi venti simul spirant; unde refringuntur et turbantur.

21. Boreas sementi faciendæ, auster insitionibus et inoculationibus cavendus.

22. A parte austri fulia ex arboribus citius decidunt; at palmites vitium ab ea parte erumpunt, et eo fere spectant.

23. In latis pascuis videndum est pastoribus (ut ait Plinius) ut greges ovium ad septentrionale latus adducant, ut contra austrum pascant. Nam si contra boream, claudicant, et lippiunt, et alvo moventur: quinetiam boreas coitum illis debilitat, adeo ut si in hunc ventum spectantes coëant oves, fœmellæ ut plurimum gignantur: sed in hoc Plinius (utpote transcriptor) sibi non constat.

24. Venti tribus temporibus frumento et segetibus nocent; in flore aperiente, et deflorescente, et sub maturitatem; tum enim exinaniunt aristas dejectis granis: at prioribus duobus temporibus florem aut in calamo constringunt aut decutiunt.

25. Flante austro anhelitus hominum magis fœtet, appetitus animalium dejicitur magis, morbi pestilentes grassantur, gravedines incumbunt, homines magis pigri sunt et hebetes: at flante borea, magis alacres, sani, avidiores cibi. Phthisicis tamen nocet boreas, et tussiculosis, et podagricis, et omni fluxui acuto.

26. Eurus siccus, mordax, mortificans; zephyrus humidus, clemens, almus.

27. Eurus, spirans vere adulto, calamitas fructuum, inducendo erucas et vermes, ut vix foliis parcatur; nec æquus admodum segetibus: zephyrus contra, herbis, floribus, et omni vegetabili, maxime propitius et amicus. At eurus quoque circa æquinoctium autumnale satis gratiosus.

28. Venti ab occidente spirantes sunt vehementiores quam illi ab oriente, et magis enrvant, et contorquent arbores.

29. Tempestas pluviosa, quæ incipit spirante euro, longius durat quam quæ spirante zephyro, et fere ad diem integrum extenditur.

30. Eurus ipse et boreas, postquam inceperint flare, constantius flant: auster et zephyrus magis mutabiles.

31. Flante euro visibilia omnia majora apparent: at flante zephyro audibilia; etiam longius deferuntur soni.

32. "Cæciam nubes ad se trahere," apud Græcos in proverbium transiit, comparando ei fœneratores, qui pecunias erogando sorbent: vehemens est ventus et latus, ut non possit summovere nubes tam cito, quam illæ renitantur et se vertant; quod fit etiam in majoribus incendiis, quæ contra ventum invalescunt.

33. Venti cardinales, aut etiam semicardinales, non sunt tam procellosi, quam mediani.

34. Mediani, a borea ad euro-boream, magis sereni; ab euro-borea ad eurum, magis procellosi. Similiter ab euro ad euro-austrum, magis sereni; ab euro-austro ad austrum, magis procellosi. Similiter ab austro ad zephyro-austrum, magis sereni; a zephyro-austro ad zephyrum, magis procellosi. Similiter a zephyro ad zephyro-boream, magis sereni; a zephyro-borea ad boream, magis procellosi: ita ut progrediendo secundum ordinem cœli, semper mediani prioris semicardinis disponantur ad serenitatem; posteriores, ad tempestates.

35. Tonitrua, et fulgura, et ecnephiæ fiunt spirantibus ventis frigidis, quique participant ex borea, quales sunt corus, thrascias, circius, meses, cæcias: ideoque fulgura sæpius comitatur grando.

36. Etiam nivales venti a septentrione veniunt, sed ab iis medianis qui non sunt procellosi, veluti corus et meses.

37. Omnino venti quinque modis naturas suas et proprietates nanciscuntur. Vel ab absentia aut præsentia solis; vel a consensu et dissensu cum naturali motu aëris: vel a diversitate materiæ fomitum suorum a quibus generantur, maris, nivis, paludum, etc. vel a tinctura regionum per quas pertranseunt: vel ab originibus localibus suis, in alto, sub terra, in medio; quæ omnia sequentes articuli melius explanabunt.

38. Venti omnes habent potestatem desiccandi, etiam magis quam ipse sol; quia sol vapores elicit, sed, nisi admodum fervens fuerit, non dissipat; at ventus eos et elicit et abducit: attamen auster minime omnium hoc facit; quinetiam saxa et trabes sudant magis flante nonnihil austro, quam in tranquillo.

39. Martii magis longe desiccant, quam æstivi; adeo ut artifices instrumentorum musicorum ventos martios expectent ad materiam instrumentorum suorum desiccandam, eamque reddendam porosam et sonoram.

40. Venti omnis generis purgant aërem, eumque a putredine vindicant, ut anni, in quibus venti frequentius spirent, sint maxime salubres.

41. Sol principum fortunam subit; quibuscum ita sæpe agitur, ut præsides in provinciis remotis magis obnoxios habeant subditos, et quibus obsequia præstentur magis, quam principi ipsi. Certe venti, qui potestatem et originem habent a sole, æque aut plus gubernant temperaturas regionum et affectus aëris, quam ipse sol, in tantum ut Peruvia (quæ propter propinquitatem oceani, vastitatem amnium, et altissimos et maximos montes nivales, maximam habet copiam ventorum et aurarum spirantium) cum Europa de temperamento et clementia aëris certet.

42. Nil mirum si ventorum tantus sit impetus, quantus invenitur, quandoquidem venti vehementes sint tanquam inundationes, atque torrentes et fluctus magni aëris. Neque tamen, si attentius advertas, magnum quiddam est eorum potentia. Possunt dejicere arbores, quæ cacuminum onere, tanquam velis expansis, iisdem commoditatem præbent, et se ipsæ onerant; possunt etiam ædificia infirmiora; sed structuras solidiores, nisi fiant cum terræ motibus, non subvertunt. Nives quandoque tanquam integras dejiciunt ex montibus, ut planitiem subjacentem fere sepeliant, quod accidit Solymanno in campis Sultaniæ; etiam magnas quandoque immittunt inundationes aquarum.

43. Amnes quandoque tanquam in sicco ponunt venti, et fundos ipsorum discooperiunt: Si enim, post magnam siccitatem, ventus robustus in consecutione fili aquæ, pluribus diebus spirarit, ita ut aquas amnis, tanquam everrendo, devexerit in mare, aquas marinas prohibuerit, fit siccatio amnis in multis locis insolitis.

Monitum. Verte polos, et verte simul observationes, quatenus ad austrum et boream. Cum enim absentia et præsentia solis in causa sit, variat pro ratione polorum. At illud constans res esse possit, quod plus sit maris versus austrum, plus sit terræ versus boream, quod etiam ad ventos non parum facit.

Monitum. Mille modis fiunt venti, ut ex inquisitione sequenti patebit: itaque in re tam varia figere observationes haud facile est. Attamen quæ a nobis posita sunt, pro certo plerumque obtinent.

ORIGINES LOCALES VENTORUM.

Ad Artic. 8 Connexio.

Ventorum origines locales nosse arduæ est inquisitionis, eum illud Unde et Quo ventorum, ut res abdita, etiam in Scripturis notata sit. Neque loquimur jam de fontibus ventorum particularium, (de quibus postea,) sed de matricibus ventorum in genere. Alii ex alto eas petunt, alii in profundo rimantur; in medio autem, ubi ut plurimum generantur, vix eas quærunt; ut est mos hominum quæ ante pedes posita sunt præterire, et obscuriora malle. Illud liquet, ventos aut indigenas, aut advenas esse; sunt enim venti tanquam mercatores vaporum, eosque in nubes collectos et important in regiones, et exportant, unde iterum venti, tanquam per permotationem. Sed inquiramus jam de nativis. Qui enim aliunde adveniæ, alibi nativi. Tres igitur origines locales; aut exspirant et scaturiunt e terra; aut dejiciuntur e sublimi; aut conflantur hic in corpore aëris. Qui autem dejiciuntur ex alto, duplicis generationis; aut enim dejiciuntur antequam formentur in nubes, aut postea ex nubibus rarefactis et dissipatis. Videamus quæ sit harum rerum historia.

1. Fixerunt poëtæ, regnum Æoli in antris et cavernis sub terram fuisse collocatum, ubi career esset ventorum, qui subinde emittebantur.

2. Etiam theologos quosdam, eosdemque philosophos, movent Scripturæ verba: "Qui producit ventos de thesauris suis:" tanquam venti prodirent ex locis thesaurariis, subterraneis scilicet, ubi sunt mineræ: sed hoc nihil est. Nam loquitur etiam Scriptura de thesauris nivis et grandinis, quas in sublimi generari nemo dubitat.

3. In subterraneis proculdubio magna existit aëris copia, eamque et exspirare sensim verisimile, et emitti confertim aliquando, urgentibus causis, necesse est.

Phænomenon obliquum.

In magnis siccitatibus et media æstate, cum magis rimosa sit terra, solet erumpere in locis aridis et arenosis magna vis aquarum. Quod si faciant aquæ (corpus crassum) raro; aërem (corpus tenue et subtile) hoc frequenter facere probabile est.

4. Si expirat aër e terra sensim et sparsim, parum percipitur primo; sed postquam aëris illius emanationes multæ minutæ confluxerint, tum fit ventus; ut ex scaturiginibus aquarum rivus. Hoc vero ita fieri videtur, quoniam notatum est ab antiquis, ventos complures in ortu suo, et in locis a quibus oriuntur, primo spirare exiguos, deinde in progressu invalescere prorsus, more fluviorum.

5. Inveniuntur quædam loca in mari, ac etiam lacus, qui, nullis flantibus ventis, majorem in modum tumescunt, ut hoc a subterraneo flatu fieri appareat.

6. Magna vis requiritur spiritus subterranei, ut terra concutiatur aut scindatur: levior, ut aqua sublevetur. Itaque tremores terræ rari; tumores et sublevationes aquarum frequentiores.

7. Etiam ubique notatum est, nonnihil attolli et tumescere aquas ante tempestates.

8. Spiritus subterraneus exilis, qui sparsim efflatur, non percipitur super terram, donec coierit in ventum, ob porositatem terræ; sed exiens subter aquas, ob continuitatem aquæ, statim percipitur ex tumore nonnullo.

9. Asseelas esse ventos terrarum cavernosarum antea posuimus, ut prorsus videantur venti illi habere origines suas locales e terra.

10. In montibus magnis et saxeis inveniuntur venti et citius spirare (antequam scilicet percipiantur in valibus) et frequentius (cum scilicet valles sint in tranquillo): at omnes montes et rupes cavernosi sunt.

11. In comitatu Denbigh in Britannia, montosa regione et lapidoso, ex cavernis quibusdam tam vehementes (ait Gilbertus) sunt ventorum eruptiones, ut injecta vestimenta pannique rursus magna vi efflentur, et altius in aërem efferantur.

12. In Aber Barry juxta Sabrinam in Wallia, in quodam clivo saxoso, in quo sunt foramina, si quis aurem apposuerit, sonitus varios et murmur flatuum sub terra exaudiet.

Phænomenon obliquum.

Notavit Acosta, oppida Platæ et Potosæ in Peruvia non longe esse distantia, et utrumque situm esse in terra elevata aut montana, ut in hoc non differant; et nihilominus habere Potosam temperaturam aëria frigidam et hiemalem, Platam elementem et vernam; id quod videtur argenti fodinis juxta Potosam attribui posse; quod demonstrat esse spiracula terræ, quatenus ad calidum et frigidum.

13. Si terra sit primum frigidum, ut voluit Parmenides, (non contemnenda usus sententia, cum frigus et densitas areto copulentur vinculo,) non minus probabile est, ejici halitus calidiores a frigore centrali terræ, quam dejici a frigore aëris sublimioris.

14. Sunt quidam putei in Dalmatia et regione Cyrenaica, ut quidam ex antiquis memorant, in quibus, si dejiciatur lapis, excitantur paulo post tempestates; ac si lapis perfringeret uperculum aliquod in loco, ubi vis ventorum erat incarcerata.

Phænomenon obliquum.

Flammas evomunt Ætna, et complures montes; similiter et aërem erumpere posse consentaneum est, præsertim calore in subterraneis dilatatum et in motu positum.

15. In terræ motibus, ventos quosdam noxios et peregrinos, et ante eruptionem et postea flare, observatum est; ut fumi quidem minores solent emitti ante et post incendia magna.

Monitum.

Aër in terra conclusus erumpere ob varias causas compellitur. Quandoque massa terræ male coagmentata in cavum terræ decidit: quandoque aquæ se ingurgitant: quandoque expanditur aër per ignes subterraneos, ut ampliorum locum quærat: quandoque terra, quæ antea solida erat et concamerata, per ignes in cineres versa, se amplius sustinere non potest, sed decidit; et complura id genus.

Atque de prima origine locali ventorum, videlicet e subterraneis, hæc inquisita sunt; sequitur origo secunda ex sublimi, nempe media, quam appellant, regione aëris.

Monitum.

At nemo tam male quæ dicta sunt intelligat, quasi negemus, et reliquos ventos e terra et mari per vapores educi; sed hoc

prius genus erat ventorum, qui exeunt e terra jam venti formati.

16. Increbrescere murmur sylvarum antequam manifesto percipiantur venti, notatum est; ex quo conjicitur ventum a superiore loco descendere; quod etiam observatur in montibus (ut dictum est) sed causa magis ambigua propter cava montium.

17. Stellas sagittantes (ut loquimur) et vibratas sequitur ventus; atque etiam ex ea parte, ex qua fit jaculatio; ex quo patet, aërem in alto commotum esse antequam ille motus perveniat ad nos.

18. Apertio cœli, et disgregatio nublum, præmonstrat ventos, antequam flent in terra; quod itidem ostendit ventos inchoari in alto.

19. Stellæ exiguæ, antequam oriatur ventus, non cernuntur, licet nocte serena; cum scilicet (ut videtur) densatur, et fit minus diaphanus aer, propter materiam quæ postea solvitur in ventos.

20. Circuli apparent circa corpus lunæ; sol quandoque occidens conspicitur sanguineus; luna rubicundior est in ortu quarto; et complura alia inveniuntur prognostica ventorum in sublimi (de quibus suo loco dicemus); quæ indicant materiam ventorum ibi inchoari et præparari.

21. In istis phænomenis notabis illam, de qua diximus, differentiam, de duplici generatione ventorum in sublimi; nimirum ante congregationem vaporum in nubem, et post. Nam prognostica halonum et colorum solis et lunæ habent aliquid ex nube; at jaculatin illa et occultatio stellarum exiguarum fiunt in sereno.

22. Cum ventus prodit a nube formata, aut totaliter dissipatur nubes, et vertitur in ventum; aut secernitur partim in pluviam, partim in ventum; aut scinditur, et erumpit ventus, ut in procella.

23. Plurima sunt phænomena obliqua ubique in natura rerum de repercussione per frigidum; itaque cum constet esse in media regione aeris frigora valde intensa, planum fit, vapores maxima ex parte ea loca perfringere non posse, quin aut coagulentur, aut vibrentur; secundum opinionem veterum, in hac parte sanam.

Tertia origo localis ventorum est eorum, qui hic in inferiore aëre generantur, quos etiam tumores sive superonerationes aëris appellamus. Res maxime familiaris, et tamen silentio transmissa.

Commentatio. Horum ventorum, qui conflantur in aëre infimo, generatio abstrusior aliqua res non est, quam hæc ipsa: Quod scilicet aër, noviter factus ex aqua et vaporibus attenuatis et resolutis, conjunctus cum aëre priore, non potest contineri iisdem quibus antea spatiis; sed excrescit, et volvitur, et ulteriora loca occupat. Hujus tamen rei duo sunt assumpta. Unum, quod gutta aquæ in aërem versa (quicquid de decima proportione elementorum fabulentur) centuplo ad minus plus spatii desiderat, quam prius; alterum, quod parum aëris novi et moti, superadditum aëri veteri, totum concitit et in motu ponit: ut videre est ex pusillo vento, qui ex follibus aut rima fenestræ efflat, qui tamen totum aërem in cubiculo in motu ponere possit; ut ex flammis lucernarum facile apparet.

24. Quemadmodum rores et nebulæ hic in aere infimo generantur, nunquam factæ nubes, nec ad mediam regionem penetrantes; eodem modo et complures venti.

25. Aura continua spirat circa maria et aquas, quæ est ventus pusillus noviter factus.

26. Iris, quæ est ex meteoris quasi humillima, et generatur in proximo, quando non conspicitur integra, sed curtata, et quasi frusta ejus tantum in cornibus, solvitur in ventos, æque ac in pluviam, et magis.

27. Notatum est, esse quosdam ventos in regionibus, quæ disterminantur et separantur per montes intermedios, qui ex altera parte montium spirant familiares, ad alteram non perveniunt. Ex quo manifestum, eos generari infra altitudinem ipsorum montium.

28. Infiniti sunt venti, qui spirant diebus serenis, atque etiam in regionibus ubi nunquam pluit: qui generantur ubi flant, nec unquam erant nubes, aut in medium regionem ascenderunt.

Phænomena obliqua. Quicunque norit quam facile vapor solvatur in aërem, et quam ingens sit copia vaporum, et quantum spatium occupet gutta aquæ versa in aërem præ eo, quod antea occupabat, (ut dictum est,) et quam modicum sustinet ae comprimi aër, non dubitabit quin necesse sit, etiam a superficie terræ usque ad sublimia aëris, ubique generari ventos: neque enim fieri potest, ut magna copia vaporum, cum cœperint expandi, ad mediam aëris regionem attollantur absque superoneratione aëris et tumultu in via.

ACCIDENTALES GENERATIONES VENTORUM.

Ad Art. 2. Connexio. Accidentales generationes ventorum eas vocamus quæ non efficiunt aut gignunt motum impulsivum ventorum, sed eum compressione aucunt, repercussione vertunt; sinuatione agitant et volvunt: quod fit per causas extrinsecas et posituram corporum adjunctorum.

1. In locis ubi sunt colles minus elevati, et circa hos subsidunt valles, et ultra ipsos rursus colles altiores, major est agitatio aëris et sensus ventorum, quam aut in montanis aut in planis.

2. In urbibus, si sit aliquis locus paulo latior, et exitus angustiores, aut angiportus et plateæ se invicem secantes, percipiuntur ibi flatus et auræ.

3. In ædibus refrigeratoria per ventos fiunt, aut occurrunt, ubi aër est perflatilis, et ex una parte introit aër, ex adverso exit; sed multo magis, si aër intrat ex diversis partibus, et facit concursum auræ ad angulos, et habet exitum illi angulo communem: etiam concameratio cœnaculorum, et rotunditas, plurimum facit ad auras; quia repercutitur aër commotus ad omnes lineas; etiam sinuatio porticuum magis juvat, quam si exporrigantur in recto; flatus enim in recto, licet non concludatur, sed liberum habeat exitum, tamen non reddit aërem tam inæqualem, et voluminosum, et undantem, quam conflnxus ad angulos, et anfractus, et glomerationes in rotundo, et hujusmodi.

4. Post magnas tempestates in mari continuatur ventus accidentalis ad tempus postquam originalis resederit, factus ex collisione et percussione aëris per undulationem fluctuum.

5. Reperitur vulgo in hortis repercussio venti a parietibus, et ædibus, et aggeribus; ita ut putaret quis, ventum in contrariam partem sprare ejus, a qua revera spirat.

6. Si montes regionem aliqua ex parte cingant, et ventus paulo diutius ex plano contra montem spiraverit, fit ut ipsa repercussione montis aut contrahatur ventus in pluviam, si fuerit humidior, aut vertatur in ventum contrarium, sed qui brevi tempore duret.

7. In flexionibus promontoriorum experiuntur nautæ sæpius mutationes ventorum.

VENTI EXTRAORDINARII, ET FLATUS REPENTINI.

Ad Art. 10. Connexio. De ventis extraordinariis sermocinantur quidam et causantur; eenephia sive procella, vortice, typhone, prestere: sed rem non narrant, quæ certe ex chronicis et historia sparsa peti debet.

1. Repentini flatus nunquam cœlo sereno fiunt, sed semper nubilo et cum imbre: ut eruptionem quandam fieri, et flatum excuti, aquas concuti, recte putetur.

2. Procellæ, quæ fiunt cum nebula aut caligine, quas belluas vocant, quæque se sustinent instar columnæ, vehementes admodum sunt, et diræ navigantibus.

3. Typhones majores, qui per latitudinem aliquam notabilem corripiunt, et correpta sorbent in sursum, raro fiunt; at vortices, sive turbines exigui, et quasi ludicri, frequenter.

4. Omnes procellæ, et typhones, et turbines majores, habent manifestum motum præcipitii aut vibrationis deorsum, magis quam alii venti; ut torrentum modo ruere videantur, et quasi per canales defluere, et postea a terra reverberari.

5. Fit in pratis, ut cumuli fœni quandoque in altum ferantur, et tum instar conopei spargantur; etiam in agris, ut caules pisarum involuti, et aristæ segetum demessæ, quin etiam lintea ad exsiccandum exposita, attollantur a turbinibus usque ad altitudinem arborum, aut supra fastigia ædium; hæcque fiunt absque aliquo majore venti impetu aut vehementia.

6. At quandoque fiunt turbines leves, et admodum angusti, etiam in sereno; ita ut equitans videat pulveres vel paleas corripi et verti prope se, neque tamen ipse magnopere ventum sentiat; quæ proculdubio fiunt hic prope ex auris contrariis se mutuo repellentibus, et circulationem aëris ex concussione facientibus.

7. Certum est, esse quosdam flatus, qui manifesta vestigia relinquunt adustionis et torrefactionis in plantis. At presterem, qui est tanquam fulgur cæcum atque aër fervens, sed sine flamma, ad inquisitionem de fulgure rejicimus.

CONFACIENTIA AD VENTOS, ORIGINALES SCILICET; NAM DE ACCIDENTALIBUS SUPRA INQUISITUM EST.

Ad Art. 11, 12, 13, 14, 15, Connexio. Quæ a veteribus de ventis eorumque causis dicta sunt, confusa plane sunt et incerta, nec maxima ex parte vera: neque mirum si non cernant clare, qui non spectant prope. Loquuntur ac si ventus aliud quippiam esset separatum ab aëre moto; atque ac si exhalationes generarent et conficerent corpus integrum ventorum, atque ac si materia ventorum esset exhalatio tantum calida et sicca; atque ac si origo motus ventorum esset tantummodo dejectio et percussio a frigore mediæ regionis: omnia phantastica et pro arbitrio. Attamen ex hujusmodi filis magnas conficiunt telas; operas scilicet aranearum. At omnis impulsio aëris est ventus, et exhalationes permixtæ aëri plus conferunt ad motum, quam ad materiam; et vapores numidi, ex calore proportionato, etiam facilius solvuntur in ventum, quam exhalationes siccæ; et complures venti generantur in regione infirma aëris, et ex terra exspirant, præter illos qui dejiciuntur et repercutiuntur. Videamus qualis sit sermo rerum ipsarum.

1. Rotatio naturalis aëris (ut dictum est in articulo de ventis generalibus) absque causa alia externa, gignit ventum perceptibilem intra tropicos, ubi aëris conversio fit per circulos majores.

2. Post motum aëris naturalem, antequam inquiramus de sole, qui est genitor ventorum præcipuus, videndum, num quid sit tribuendum lunæ et aliis astris, ex experientia clara.

3. Excitantur venti magni et fortes nonnullis ante eclipsin lunæ horis; ita ut, si luna deficiat medio noctis, flent venti vesperi præcedente; si luna deficiat mane, flent venti medio noctis præcedente.

4. In Peruvia, quæ regio est admodum flatilis, notat Acosta maxime flare ventos in pleniluniis.

Mandatum. Dignum certe esset observatione, quid possint super ventos motus et tempora lunæ, cum liquido possint super aquas: veluti, utrum venti non sint paulo commotiores in pleniluniis et noviluniis quam in dimidiis, quemadmodum fit in æstibus aquarum: licet enim quidam commode fingant imperium lunæ esse super aquas; solis vero et astrorum super aërem; tamen certum est aquam et aërem esse corpora valde homogenea, et lunam, post solem, plurimum hic apud nos posse in omnibus.

5. Circa conjunctiones planetarum non fugit hominum observationem flare ventos majores.

6. Exortu Orionis surgunt plerumque venti et tempestates variæ; sed videndum annon hoc fiat, quia exortus ejus sit eo tempore anni, quod ad generationem ventorum est maxime efficax; ut sit potius concomitans quiddam, quam causa; quod etiam de ortu hyadum et pleiadum quoad imbres, et arcturi quoad tempestates, similiter merito dubitari possit: de luna et stellis hactenus.

7. Sol proculdubio est efficiens primarius ventorum plurimorum, operans per calorem in materiam duplicem: corpus scilicet aëris, et vapores sive exhalationes.

8. Sol, cum est potentior, aërem, licet purum et absque immistione ulla, dilatat fortasse ad tertiam partem, quæ res haud parva est. Itaque per simplicem dilatationem, necesse est ut oriatur aura aliqua in viis solis, præsertim in magnis fervoribus; idque potius duas aut tres horas post exortum ejus, quam ipso mane.

9. In Europa noctes sunt æstuosiores; in Peruvia tres horæ matutinæ; ob unam eandemque causam;

videlicet, cessationem aurarum et ventorum illis horis.

10. In vitro calendari aër dilatatus deprimit aquam tanquam flatu; at in vitro pileato, aëre tantummodo impleto, aër dilatatus inflat vesicam ut ventus manifestus.

11. Experimentum fecimus in turri rotunda, undique clausa, hujus generis venti: nam foculum in medio ejus locavimus, cum prunis penitus ignitis, ut minus esset fumi; at a latere foculi in distantia nonnulla filum suspendimus cum cruce ex plumis, ut facile moveretur. Itaque post parvam moram, aucto calore et dilatato aëre, agitabatur crux plumea cum filo suo hinc inde motu vario; quin etiam facto foramine in fenestra turris exibat flatus calidus, neque ille continuus, sed per vices, et undulans.

12. Etiam receptio aëris per frigus a dilatatione creat ejusmodi ventum, sed debiliorem, ob minores vires frigoris; adeo ut in Peruvia, sub quavis parva umbra, non solum majus percipiatur refrigerium, quam apud nos (per antiperistasin) sed manifesta aura ex receptione aëris quando subit umbram.

Atque de vento per meram dilatationem aut receptionem aëris facto, hactenus.

13. Venti ex meris motibus aëris, absque immistione vaporum, lenes et molles sunt. Videndum de ventis vaporariis, (eos dicimus qui generantur a vaporibus,) qui tanto illis alteris possunt esse vehementiores, quanto dilatatio guttæ aquæ versæ in aërem excedit aliquam dilatationem aëris jam facti: quod multis partibus facit, ut superius monstravimus.

14. Ventorum vaporariorum (qui sunt illi qui communiter flant) efficiens est sol, et calor ejus proportionatus; materia, vapores et exhalationes qui vertuntur et resolvuntur in aërem; aërem inquam, (non aliud quippiam ab aëre,) sed tamen ab initio minus sincerum.

15. Solis calor exiguus non excitat vapores, itaque nec ventum.

16. Solis calor medius excitat vapores, nec tamen eos continuo dissipat. Itaque si magna fuerit ipsorum copia, coëunt in pluviam, aut simplicem, aut cum vento conjunctam; si minor, vertuntur in ventum simplicem.

17. Solis calor in incremento inclinat magis ad generationem ventorum; in decremento, pluviarum.

18. Solis calor intensus et continuatus attenuat et dissipat vapores, eosque sublimat, atque interim aëri æqualiter immiscet et incorporat; unde aër quietus fit et serenus.

19. Calor solis magis æqualis et continuus, minus aptus ad generationem ventorum; magis inæqualis et alternans, magis aptus. Itaque in navigatione ad Russiam minus afflictantur ventis, quam in mari Britannico, propter longos dies; at in Peruvia sub æquinoctio crebri venti, ob magnam inæqualitatem caloris, alternantem noctu et intardiu.

20. In vaporibus et copia spectatur et qualitas: copia parva gignit auras lenes; media ventos fortiores; magna aggravat aërem, et gignit pluvias, vel tranquillas, vel cum ventis.

21. Vapores ex mari, et amnibus, et paludibus inundatis, longe majorem copiam gignunt ventorum, quam halitus terrestres: attamen, qui a terra et locis minus humidis gignuntur venti, sunt magis obstinati et diutius durant, et sunt illi fere qui dejiciuntur ex alto; ut opinio veterum in hac parte non fuerit omnino inutilis; nisi quod placuit illis, tanquam divisa hæreditate, assignare vaporibus pluvias, et ventis solummodo exhalationes, et hujusmodi pulchra dictu, re inania.

22. Venti ex resolutionibus nivium jacentium super montes sunt fere medii inter ventos aquaticos et terrestres, sed magis inclinant ad aquaticos; sed tamen sunt acriores et mobiliores.

23. Solutio nivium in montibus nivalibus (ut prius notavimus) semper inducit ventos statos ex ea parte.

24. Etiam anniversarii aquilones circa exortum caniculæ existimantur venire a mari glaciali, et partibus circa circulum arcticum, ubi seræ sunt solutiones glaciei et nivium, æstate tum valde adulta.

25. Moles, sive montes glaciales, quæ devehuntur versus Canadam et Terram Piscationis, magis gignunt auras quasdam frigidas, quam ventos mobiles.

26. Venti, qui ex terris sabulosis aut cretaceis proveniunt, sunt pauci et sicci; iidem in regionibus calidioribus æstuosi, et fumei, et torridi.

27. Venti ex vaporibus marinis facilius abeunt retro in pluviam, aqua jus suum repetente et vindicante: aut si hoc non conceditur, miscentur protinus aëri, et quietem agunt: at halitus terrei, et fumei, et unctuosi, et solvuntur ægrius, et ascendunt altius, et magis irritati sunt in suo motu, et sæpe penetrant mediam regionem aëris, et sunt aliqua materia meteororum ignitorum.

28. Traditur apud nos in Anglia, temporibus, cum Gasconia esset hujus ditionis, exhibitum fuisse regi libellum supplicem per subditos suos Burdegaliæ et confinium; petendo ut prohiberetur incensio ericæ in agris Sussexiæ et Hamptoniæ, quia gigneret ventum circa finem Aprilis vineis suis exitiabilem.

29. Concursus ventorum ad invicem, si fuerint fortes, gignunt ventos vehementes et verticosos; si lenes et humidi, gignunt pluviam, et sedant ventos.

30. Sedantur et coërcentur venti quinque modis: cum aut aër, vaporibus oneratus et tumultuans, liberatur, vaporibus se contrahentibus in pluviam; aut cum vapores dissipantur et fiunt subtiliores, unde permiscentur aëri, et belle cum ipso conveniunt et quiete degunt; aut cum vapores sive halitus exaltantur, et sublimantur in altum, adeo ut requies sit ab ipsis, donec a media regione aëris dejiciantur aut eam penetrent; aut cum vapores, coacti in nubes, ab aliis ventis in alto spirantibus, transvehuntur in alias regiones, ut pax sit ab ipsis in regionibus quas prætervolant; aut denique, cum venti a fomitibus suis spirantes, longo itinere, nec succedente nova materia, languescunt, et impetu suo destituuntur, et quasi exspirant.

31. Imbres plerumque ventos sedant, præsertim procellosos, ut et venti contra sæpius detinent imbrem.

32. Contrahunt se venti in pluviam (qui est primus ex quinque sedandi modis, isque præcipuus) aut ipso onere gravati cum vapores sint copiosi; aut propter contrarios motus ventorum modo sint placidi; aut propter obices montium et promontoriorum,

quæ sistunt impetum ventorum, eosque paulatim in se vertunt; aut per frigora intensiora, unde condensantur.

33. Solent plerumque venti, minores et leviores, mane oriri et cum sole decumbere, sufficiente condensatione aëris nocturna ad receptionem eorum. Aër enim nonnullam compressionem patitur absque tumultu.

34. Sonitus campanarum existimatur tonitrua et fulgura dissipare; de ventis non venit in observationem.

Monitum. Consule locum de prognosticis ventorum; est enim nonnulla connexio causarum et signorum.

35. Narrat Plinius turbinis vehementiam, aspersione aceti in occursum ejus, compesci.

LIMITES VENTORUM.

Ad Art. 16, 17, 18. 1. Traditur de monte Atho, et similiter de Olympo; consuevisse sacrificantes in aris, super fastigia ipsorum extructis, literas exarare in cineribus sacrificiorum, et postea redeuntes elapso anno (nam anniversaria erant sacrificia) easdem literas reperisse neutiquam turbatas aut confusas; etiamsi aræ illæ non starent in templo aliquo, sed sub dio. Unde manifestum erat, in tanta altitudine neque cecidisse imbrem, neque spirasse ventum.

2. Referunt in fastigio Pici de Teneriph, atque etiam in Andibus inter Peruviam et Chilem, nives subjacere per clivos et latera montium; at in ipsis cacumiaibus nil aliud esse quam aërem quietum, vix spirabilem propter tenuitatem; qui etiam acrimonia quadam, et os stomachi, et oculos pungat, inducendo illi nauseam, his suffusionem et ruborem.

3. Venti vaporarii non videntur in aliqua majore altitudine flare, cum tamen probabile sit, aliquos ipsorum altius ascendere, quam pleræque nubes.

De altitudine hactenus, de latitudine videndum.

4. Certum est, spatia, quæ occupant venti, admodum varia esse, interdum amplissima, interdum pusilla et angusta. Deprehensi sunt venti occupasse spatium centenorum milliarium cum paucarum horarum differentia.

5. Spatiosi venti (si sint ex liberis) plerumque vehementes sunt, non lenes; sunt etiam diuturniores, et fere 24 horas durant; sunt itidem minus pluviosi. Angusti contra, aut leues sunt, aut procellosi; at semper breves.

6. Stati venti sunt itinerarii, et longissima spatia occupant.

7. Venti procellosi non extenduntur per largu spatia, licet semper evagentur ultra spatia ipsius procellæ.

8. Marini veati intra spatia angustiora multo, quam terrestres, spirant; in tantum ut in mari aliquando conspicere detur, auram satis alacrem aliquam partem aquarum occupare (id quod ex crispatione aquæ facile cernitur) cum undique sit malacia, et aqua instar speculi plana.

9. Pusilli (ut dictum est) turbines ludant quandoque coram equitantibus, instar fere ventorum ex follibus.

De latitudine hactenus, de duratione videndum.

10. Durationes ventorum valde vehementium in mari longiores sunt, sufficiente copia vaporum; in terra vix ultra diem et dimidium extenduntur.

11. Venti valde lenes nec in mari nec in terra ultra triduum constanter flant.

12. Non solum eurus zephyro magis est durabilis, (quod alibi posuimus,) sed etiam quicunque ille ventus sit, qui mane spirare incipit, magis durabilia solet esse illo qui surgit vesperi.

13. Certum est, ventos insurgere et augeri gradatim (nisi fuerint meræ procellæ) at decumbere celerius, interdum quasi subito.

SUCCESSIONES VENTORUM.

Ad Art. 19, 20, 21. 1. Si ventus se mutet conformiter ad motum solis, id est, ab euro ad austrum, ab austro ad zephyrum, a zephyro ad boream, a borea ad eurum, non revertitur plerumque; aut si hoc facit, fit ad breve tempus. Si vero in contrarium motus solis, scilicet ab euro ad boream, a borea ad zephyrum, a zephyro ad austrum, ab austro ad eurum, plerumque restituitur ad plagam priorem, saltem antequam confecerit circulum integrum.

2. Si pluvia primum inceperit, et postea cœperit flare veatua; ventus ille pluviæ superstes erit. Quod si primo flaverit ventus, postea a pluvia occiderit, non redit plerumque ventus; et si facit, sequitur pluvia nova.

3. Si venti paucis horis varient, et tanquam experiantur, et deinde cœperint constanter flare, ventus ille durabit in dies plures.

4. Si auster cœperit flare dies duos vel tres, boreas quandoque post eum subito spirabit quod si boreas spiraverit totidem dies, non spirabit auster donec ventus paulisper ab euro flarit.

5. Cum annus inclinarit, et post autumnum hiems inceperit, si incipiente hieme spiraverit auster, et postea boreas, erit hiemis glacialis; sin sub initiis hiemis spiraverit boreas, postea auster, erit hiems clemens et tepidus.

6. Plinius citat Eudoxum, quod series ventorum redeat post quadriennium; quod verum minime videtur; neque enim tam celeres sunt revolutiones. Illud ex aliquorum diligentia notatum est, tempestates grandiores et insigniores (fervorum, nivium, congelationum, hiemum tepidarum, æstatum gelidarum) redire plerumque ad circuitum annorum triginta quinque.

MOTUS VENTORUM.

Ad Art. 22, 23, 24, 25, 26, 27. Connexio. Loquuntur homines, ac si ventus esset corpus aliquod per se, atque impetu suo aërem ante se ageret et impelleret: etiam cum ventus locum mutet, loquuntur, ac si idem ventus se in alium locum transferret. Hæc vero cum loquuntur plebeii, tamen philosophi ipsi remedium hujusmodi opinionibus non præbent; sed et illi quoque balbutiunt, neque erroribus istis occurrunt.

1. Inquirendum igitur et de excitatione motus in ventis, et de directione ejus, cum de originibus localibus jam inquisitum sit. Atque de iis ventis, qui habent principium motus in sua prima impulsione, ut in iis qui dejiciuntur ex alto, aut efflant e terra, excitatio motus est manifesta: alteri sub initiis suis

descendunt, alteri ascendunt, et postea ex resistentia aëris fiunt volnminosi, maxime secundum angulos violentiæ suæ. At de illis, qui conflantur ubique in aëre inferiore (qni sunt omnium ventorum frequentissimi) obscurior videtur inquisitio; com tamen res sit vnlgaris, nt in commentatione sub articulo octavo declaravimus.

2. Etiam hnjus rei imaginem reperimus in illa turri occlusa, de qua paulo ante: tribus enim modis illud experimentnm variavimus. Primus erat, is de quo supra diximus, foculus ex prunis ante ignitis et claris. Secundus erat lebes aqoæ ferventis, remoto illo foculo, atque tnm erat motus crucis plumeæ magis hebes et piger, quam ex foculo prunarum, hærente in aëre rore vaporis aquei, nec dissipato in materiam venti propter imbecillitatem caloris. At tertius erat ex utrisque simul, foculo et lebete; tum vero longe maxima erat crucis plumeæ agitatio, adeo ut quandoque illam in sursnm verteret, instar pnsilli turbinis; aqua scilicet præbente copiam vaporis, et foculo, qni astabat, eum dissipante.

3. Itaque excitationis motus in ventis causa est præcipna superoneratio aëris, ex nova accessione aëris facti ex vaporibus.

Jam de directione motus videndum, et de vertieitate, quæ est directionis mntatio.

4. Directionem motus progressivi ventorum regunt fomites sui, qni sunt similes fontibus amnium; loca scilicet, nbi magna reperitur copia vaporum, ibi enim est patria venti. Postquam autem invenerint currentem; ubi aër minime resistit, (sicut aqua invenit declivitatem,) tum quicqnid inveniunt similis materiæ in via, in consortium recipiunt, et suo currenti miscent; qnemadmodum faciunt et amnes. Itaque venti spirant semper a parte fomitum suorum.

5. Ubi non sunt fomites insignes in aliquo loco certo, vagantur admodum venti, et facile currentem snum mutant, nt in medio mari, et campestribns terræ latis.

6. Ubi magni sunt fomites ventorum in uno loco, sed in locis progressus sui parvæ accesaiones, ibi venti fortiter flant sub initiis, et paulatim flaccescunt; ubi contra fomites magis continui, leniores sunt sub initiis, et postea augentur.

7. Sunt fomites mobiles ventorum, scilicet in nnbibus; qni sæpe a ventis in alto spirantibus transportantur in loca procol distantia a fomitibus vaporum, ex quibus generatæ sunt illæ nubes: tum vero incipit esse fomes venti ex parte, ubi nubes incipiunt solvi in ventum.

8. At verticitas ventorum non fit eo, quod ventns prius flans se transferat; sed quod ille aut occiderit, aut ab altero vento in ordinem redactus sit. Atque totum hoc negotium pendet ex variis collocationibus fomitum ventorum, et varietate temporum, quando vapores, ex hujusmodi fomitibus manantes, solvuntur.

9. Si fuerint fomites ventorum a partibus contrariis, veluti alter fomes ab austro, alter a borea; prævalebit scilicet ventus fortior, neque erunt venti contrarii, sed ventus fortior continuo spirabit; ita tamen nt a vento imbecilliore nonnihil hebetetur et dometur; ut fit in amnibus, accedente fluxu maris: nam motus maris prævalet, et est unicus; sed a motu fluvii nonnihil frænatur. Quod si ita accidevit, ut alter ex illis ventis contrariis, qui primum fortior fuerat, succumbat, tum subito spirabit ventus a parte contraria, unde et ante spirabat, sed latitabat sub potestate majoris.

10. Si fomes (exempli gratia) fuerit ad enroboream, spirabit scilicet euro-boreas. Qood si fuerint duo fomites ventorum, alter ad eurum, alter ad boream, ii venti ad aliquem tractum spirabunt separatim; at post angulum confluentiæ spirabunt ad euro-boream, aut cnm inclinatione, prout alter fomes fuerit fortior.

11. Si sit fomes venti ex parte boreali, qui distet ab aliqua regione viginti milliaribus, et sit fortior, alter ex parte orientali, qui distet decem milliaribus, et sit debilior; spirabit tamen ad aliquas horas eurus, paulo post (nimirum post emensum iter) boreas.

12. Si spiret boreas, atque occurrat ab occidente mons aliqnis, spirabit paulo post euro-boreas, compositus scilicet ex vento originali et repercusso.

13. Si sit fomes ventorum in terra a parte boreæ, halitus autem ejus feratur recta sursum, et inveniat nubem gelidam ab occidente, quæ eam in adversum detrudat, spirabit euro-boreas.

Monitum. Fomites ventorum in terra et mari sunt stabiles, ita ut fons et origo ipsorum melius percipiatur: at fomites ventorum in nubibus sunt mobiles; adeo ut alibi suppeditetur materia ventorum, alibi vero ipsi formentur: id quod efficit directionem motus in ventis magis confusam et incertam.

Hæc exempli gratia adduximus; similia simili modo se habent. Atque de directione motus ventorum hactenus. At de longitndine et tanquam itinerario ventorum videndum; licet de hoc ipso paulo ante, sub nomine latitudinis ventorum, inquisitum videri possit. Nam et latitudo pro longitudine ab imperitis haberi possit, si majora spatia venti ex latere occupent, quam in longitudine progrediantur.

14. Si verum sit, Columbum ex oris Lnsitaniæ, per ventos statos ab occidente, de continente in America judicium fecisse, longo certe itinere possint commeare venti.

15. Si verum sit, solutionem nivium circa Mare glaciale et Scandiam excitare aquilones in Italia et Græcia, &c. diebus canicularibus, longa certe sunt spatia.

16. Quanto citius in consecutione, in qua ventus movet, (exempli gratia, si sit eurus,) veniat tempestas ad locnm aliquem ab oriente, quanto vero tardius ab occidente, nondum venit in observationem.

De motu ventorum in progressu hactenus; videndum jam de undulatione ventorum.

17. Undulatio ventorum ad parva momenta fit; adeo ut centies in hora ad minus ventus (licet fortis) se suscitet, et alternatim remittat. Ex quo liqueat inæqualem esse impetum ventorum: nam nec flnmina, licet rapida, nec currentes in mari, licet robusti, nndulant, nisi accedente flatu ventorum: neque ipsa illa undulatio ventorum aliquid æqualitatis habet in se; nam, instar pulsas manus, aliquando intercnrrit, aliquando intermittit.

18. Undulatio aëris in eo differt ab undulatione aquarum, quod in aquis, postquam fluctus sublati fuerint in altum, sponte rursus decidant ad planum:

ex quo fit, ut (quicquid dicant poëtæ exaggerando tempestates, quod undæ attollantur in cœlum, et descendant in Tartarum) tamen descensus undarum non multum præcipitetur ultra planum et superficiem aquarum. At in undulatione aëris, ubi deest motus gravitatis, deprimitor et attollitur aër fere ex æquo.

De undulatione hactenus: jam de motu conflictus inquirendum est.

19. De conflictu ventorum et compositis currentibus jam partim inquisitum est. Plane constat ubiquetarios esse ventos, præsertim leniores: id quod manifestum etiam ex hoc, quod pauci sunt dies aut horæ, in quibus non spirent anræ aliquæ lenes in locis liberis, idque satis inconstanter et varie. Nam venti, qui non proveniunt ex fomitibus majoribus, vagabundi sunt et volubiles, altero eum altero quasi ludente, modo impellente, modo fugiente.

20. Visum est nonnunquam in mari advenisse duos ventos simol ex contrariis partibus, id quod ex perturbatione superficiei aquæ ab utraque parte, atque tranquillitate aquæ in medio inter eos, facile erat conspicere: postquam autem conenrrisseut illi venti contrarii, alias secutam esse tranquillitatem in aqua undique, cum scilicet venti se ex æquo fregissent, alias continuatam esse perturbationem aquæ, eum scilicet fortior ventus prævalnisset.

21. Certum est, in montibus Peruvianis sæpe necidere, ut venti eodem tempore super montes ex una parte spirent, in vallibus in contrarium.

22. Itidem certum apud nos, nubes in unam partem ferri, eum ventus a contraria parte flet, hic in proximo.

23. Quin et illud certum, aliquando eerni nubes altiores supervolare nubes humiliores; atque ita nt in diversas, aot etiam in contrarias partes abeant, tanquam currentibus adversis.

24. Itidem eertum, quandoque in superiore aëre ventos nec distrahi, nec promoveri; eum hic infra ad semi-milliare insano ferantur impetu.

25. Certum etiam e eontra, esse aliquando tranquillitatem infra, eum superne nubes ferantur satis alacriter; sed id rarius est.

Phænomenon obliquum.

Etiam in fluctibus, quandoqoe supernatans aqua, quandoque demersa, incitatior est; quinetiam fiunt (sed raro) varii eorrentes aquæ, quæ volvitur supra, et qnæ labitur in imo.

26. Neque prorsus eontemnenda illa testimonia Virgilii, eum naturalis philosophiæ non fuerit ipse omnino imperitus:

> "Una eurusque notusque ruunt, creberque procellis Africus."—

Et rursus:

> "Omnia ventorum concurrere prælia vidi."

De motibus ventorum in natura rerum inquisitum est; videndum de motibus eorum in machinis humanis; ante omnia in velis navium.

MOTUS VENTORUM IN VELIS NAVIUM.

1. In navibus majoribus Britannieis (eas enim ad exemplum delegimus) quatuor sunt mali, aliquando quinque; omnes in linea recta per medium navis dueta, alleri post alteros erecti: eos sie nominabimus:

2. Malum prineipem, qui in medio navis est; malum proræ; malum poppis (qui aliquando est geminus); et malum rostri.

3. Habent singuli mali plures portiones, quæ sustolli, et per eertos nodos aut artieulos figi, et similiter auferri possunt; alii tres, alii duas tantum.

4. Malus rostri stat ab inferiori nodo inclinatus versus mare; a soperiori rectus; reliqui omnes mali stant reeti.

5. His malis superimpendent vela decem, et quando malus puppis geminatur, duodecim. Malus princeps et malus proræ tres habent ordines velorum. Eos sie nominabimus: velum ab infra, velom a supra, et velum a summo. Reliqui habent duos tantum, earentes velo a summo.

6. Vela extenduntur in transveranm, jnxta verticem cujosque nodi mali, per ligna, quæ antennas vel virgas dieimos, quibus suprema velorum assuontur; imaligantur fonibus ad angulos tantum; vela scilieet ab iufra ad latera navis, vela a supra aot a summo ad antennas contiguas. Trahuntur etiam aut vertuntur iisdem fonibus in alterutrum latus ad placitum.

7. Antenna sive virga eojosque mali in transversum porrigitur. Sed in malis puppis ex obliqno, altero fine ejus elevato, altero depresso; in eæteris in reeto ad similitudinem literæ Tau.

8. Vela ab infra, quatenos ad vela prineipis, proræ, et rostri, sunt figuræ quadrangularis, parallelogrammæ: vela a supra et a summo nonnihil acuminata sive surgentia in aretum; at ex velis puppis qnod a sopra acuminatum, quod ab infra triangulare.

9. In navi, quæ erat mille et eentum amphorarom, ntque habebat in longitodine, in earina, pedes 112; in latitudioe, io alveo, 40; velum ab infra mali prineipis continebat in altitudine pedes 42, in latitudine pedes 87.

10. Velom a supra ejusdem mali habebat in altitudine pedes 50, in latitudine pedes 84 ad basim, pedes 42 ad fastigium.

11. Velum a summo in altitudine pedes 27, in latitudine pedes 42 ad basim, 21 ad fastigium.

12. In malo proræ, velum ab infra habebat in altitudine pedes 40 eum dimidio, in latitodine pedes 72.

13. Velum a supra in altitudine pedes 46 eum dimidio, in latitudine pedes 69 ad basim, 36 ad fastigium.

14. Velum a summo in altitudine pedes 24, in latitudine pedes 36 ad basim, 18 ad fastigium.

15. In malo puppis, velum ab infra habebat in altitudine, a parte antennæ elevata, pedes 51; in laditudine, qua jungitur antennæ, pedes 72, reliquo desinente in acutum.

16. Velum a supra in altitudine pedes 30, in latitudine pedes 57 ad basim, 30 ad eacumen.

17. Si geminetur malus puppis in posteriore, vela minuuntor ab anteriore ad partem circiter qnintam.

18. In malo rostri, velom ab infra habebat in altitudine pedes 28 eum dimidio, in latitudine pedes 60.

19. Velum a supra in altitudine pedes 25 eum dimidio, in latitudine pedes 60 ad basim, 30 ad fastigium.

20. Variant proportiones malorum et velorum, non tantum pro magnitudine navium, verum etiam pro variis earum usibus, ad qoos ædificeantur; ad pugnam, ad mereatoram, ad velocitatem, et cætera.

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Verum nullo modo convenit proportio dimensionis velorum ad numerum amphorarum, cum navis quingentarum amphorarum, aut circiter, portet velum ab infra principis mali, paucos pedes minus undique, quam illa altera, quæ erat duplicis magnitudinis. Unde fit ut minores naves longe præstent celeritate majoribus, non tantum propter levitatem, sed etiam propter amplitudinem velorum, habito respectu ad corpus navis: nam proportionem illam continuare in navibus majoribus nimis vasta res esset et inhabilis.

21. Cum singula vela per summa extendantur, per ima ligentur tantum ad angulos; ventus necessario facit vela intumescere, præsertim versus ima, ubi sunt laxiora.

22. Longe autem major est tumor veli in velis ab infra, quam in cæteris; quia non solum parallelogramma sunt, cætera acuminata; verum etiam quia latitudo antennæ tanto excedit latitudinem laterum navis, ad quæ alligantur: unde necesse est, propter laxitatem, magnum dari receptum ventis; adeo ut in illa magna, quam exempli loco sumpsimus, navi tumor in vento recto possit esse ad 9 aut 10 pedes introrsum.

23. Fit etiam ob eandem causam, quod vela omnia, a vento tumefacta, ad imum colligant se in arcus, adeo ut multum venti præterlabi necesse sit; in tantum ut in illa, quam diximus, navi arcus ille ad staturam hominis accedat.

24. At in velo puppis illo triangulari, necesse est ut minor sit tumor, quam in quadrangulari; tum propter figuram minus capacem, tum quia in quadrangulari tria latera laxa sunt, in triangulari duo tantum; unde sequitur quod ventus excipiatur magis rigide.

25. Motus ventorum in velis, quo magis accedat ad rostrum navis, est fortior, et promovet magis, tum quia fit in loco ubi undæ, propter acumen proræ, facillime secantur; tum maxime quia motus a prora trahit navem, motus a puppi trudit.

26. Motus ventorum in velis superiorum ordinum promovet magis, quam in velis ordinis inferioris; quia motus violentus maxime efficax est ubi plurimum removetur a resistentia; ut in vectibus, et velis molendinorum. Sed periculum est demersionis aut eversionis navis; itaque et acuminata sunt illa, ne ventos nimios excipiant, et in usu præcipue cum spirent venti leviores.

27. Cum vela collocentur in recta linea, altera post altera, necesse est ut quæ posterius constituantur, suffurentur ventum a prioribus, cum ventus flet recta: itaque si omnia simul fuerint erecta, tamen vis venti fere tantum locum habet in velis mali principis, cum parvo auxilio veli ab infra in malo rostri.

28. Felicissima et commodissima dispositio velorum in vento recto ea est, ut vela duo inferiora mali proræ erigantur; ibi enim (ut dictum est) motus est maxime efficax: erigatur etiam velum a supra mali principis: relinquitur enim spatium tantum subter, ut ventus sufficere possit velis prædictis proræ absque suffuratione notabili.

29. Propter illam, quam diximus, suffurationem ventorum, celerior est navigatio cum vento laterali, quam cum recto. Laterali enim flante, omnia vela in opere poni possunt; quia latera sibi invicem obvertunt, nec altera altera impediunt, neque fit furtum.

30. Etiam flante vento laterali, vela rigidius in adversum venti extenduntur; quod ventum comprimit nonnihil, et emittit in eam partem ubi flare debet: unde nonnihil fortitudinis acquirit. Ventus autem maxime propitius est, qui flat in quadra inter rectum et lateralem.

31. Velum ab infra mali rostri vix unquam posset esse inutile, neque enim patitur furtum, quando colligat ventum, qui flat undequaque circa latera navis et subter velu cætera.

32. Spectatur in motu ventorum in navibus tum impulsio tum directio. At directio illa, quæ fit per clavum, non multum pertinet ad inquisitionem præsentem, nisi quatenus habeat connexionem cum motu ventorum in velis.

Connexio.

Ut motus impulsionis in vigore est in prora, ita motus directionis in puppi; itaque ad eum velum ab infra mali puppis est maximi momenti, et quasi copiam præbet auxiliarem clavo.

33. Cum pyxis nautica in plagas 32 distribuatur, adeo ut semicirculi ejus sint plagæ sedecim, potest fieri navigatio progressiva, (non angulata, quæ fieri solet in ventis plane contrariis,) etiamsi ex illis sedecim partibus decem fuerint adversæ, et sex tantum favorabiles; at ea navigatio multum pendet ex velo ab infra mali puppis: cum enim venti partes contrariæ itineri, quia sunt præpotentes et clavo solo regi non possunt, alia vela obversuræ forent, una cum navi ipsa, in partem contrarium itineris; illud velum rigide extensum, ex opposito favens clavo et ejus motum fortificans, vertit et quasi circumfert proram in viam itineris.

34. Omnis ventus in velis nonnihil aggravat et deprimit navem; tantoque magis quo flaverit magis desuper. Itaque tempestatibus majoribus primo devolvunt antennas et auferunt vela superiora, deinde, si opus fuerit, omnia; etiam malos ipsos ineidunt; quin et projiciunt onera mercium, tormentorum, etc. ut allevent navem ad supernotandum, et præstandum obsequia undis.

35. Potest fieri per motum istum ventorum in velis navium (si ventus fuerit alacris et secundus) progressus in itinere 120 milliarium Italicorum intra spatium 24 horarum; idque in navi mercatoria; sunt enim naves quædam nunciæ, quæ ad officium celeritatis apposite extructæ sunt (quas *caravellas* vocant) quæ etiam majora spatia viacere possunt. At cum venti plane contrarii sint, remedio ad iter promovendum utuntur hoc ultimo et pusillo: ut procedant lateraliter, prout ventus permittit, extra viam itineris, deinde flectant se versus iter, atque angulares istos progressus repetant; ex quo genere progressus (quod est minus quam ipsum serpere, nam serpentes sinuant, at illi angulos faciunt) poterint fortasse intra 24 horas vincere milliaria quindecim.

OBSERVATIONES MAJORES.

1. Motus iste ventorum in velis navium habet impulsionis suæ tria præcipua capita et fontes, unde fluit; unde etiam præcepta sumi possiat ad eum augendum et fortificandum.

2. Primus, fons est ex quanto venti qui exeipitur. Nam nemini dubium esse possit, quin plus venti magis conferat quam minus. Itaque quantum ipsum venti procurandum diligenter: id fiet, si, instar patrum familias prudentiorum, et frugi simus, et a furto caveamus. Quare, quantum fieri potest, nil venti disperdatur aut effundatur, nil etiam surripiatur.

3. Ventus aut supra latera navium flat, aut infra usque ad aream maris. Atque ut homines providi solent etiam circa minima quæque magis curare, (quia majora nemo non curare potest,) ita de istis inferioribus ventis (qui proculdubio non tantum possunt quantum superiores) primo videndum.

4. Ad ventos, qui circum latera navium et subter vela ipsarum potissimum flant, plane est officium veli ab infra mali rostri, quæ inclinata est et depressa ut excipiantur, ne fiat dispendium et jactura venti. Idque et per se prodest, et ventis, qui reliquis velis ministrant, nil obest. Circa hoc non video quid ulterius per diligentiam humanam fieri possit, nisi forte etiam ex medio navis similia vela humilia adhibeantur, instar pinnarum aut alarum, ex utroque latere gemina, cum ventus est rectus.

5. At quod ad eavendum de furto attinet, quod fit cum vela posteriora ventum ab interioribus surripiant in vento recto, (nam in laterali omnia vela cooperantur,) non video quid addi possit diligentiæ humanæ; nisi, forte, ut, flante vento recto, fiat scala quædam velorum, ut posteriora vela a malo puppis sint humillima, media a malo principis mediocria, anteriora a malo proræ celsissima; ut alterum velum alterum non impediat, sed potius adjuvet, et ventum tradat et transmittat. Atque de primo fonte impulsionis hæc observata sint.

6. Secundus, fons impulsionis est ex modo percussionis veli per ventum; quæ, si propter ventum contractum sit acuta et rapida, movebit magis; si obtusa et languida, minus.

7. Quod ad hoc attinet, plurimum interest ut vela mediocrem extensionem et tumorem recipiant: nam si extendantur rigide, instar parietis ventum repercutiunt; si laxe, debilis fit impulsio.

8. Circa hoc bene se expedivit in aliquibus industria humana, licet magis ex causa quam ex judicio. Nam in vento laterali, contrahunt partem veli, quæ vento opponitur, quantum possunt; atque hoc modo ventum immittunt in eam partem, qua flare debet. Atque hoc agunt, et volunt. Sed interim hoc sequitur (quod fortasse non vident) ut ventus sit contractior, et reddat percussionem magis acutam.

9. Quid addi possit industriæ humanæ in hac parte, non video; nisi mutetur figura in velis, et fiant aliqua vela non tumentia in rotundo, sed instar calcaris, aut trianguli, cum malo aut ligno in illo angulo vertieis, ut et ventum magis contrahant in acutum, et seeent aërem externum potentius. Ille autem angulus (ut arbitramur) non debet esse omnino acutus, sed tanquam triangulus eurtatus, ut habeat latitudinem. Neque etiam novimus quid profuturum foret, si fiat tanquam velum in velo; hoc est, si in medio veli alicujus majoris sit bursa quædam, non omnino laxa ex carbaso, sed cum costis ex lignis, quæ ventum in medio veli excipiat, et eogat in acutum.

10. Tertius, fons impulsionis est ex loco ubi fit percussio; isque duplex. Nam ex anteriore parte navis faeilior et fortior est impulsio, quam ex posteriore; et ex superiore parte mali et veli, quam ab inferiore.

11. Neque hoc ignorasse visa est industria humana, eum et flante vento recto plurimam in velis mali proræ spem ponant; et in malaciis et tranquillitatibus vela a summo erigere non negligant. Neque nobis in præsentia occurrit, quid humanæ ex hac parte industriæ addi possit, nisi forte quoad primum, ut constituantur duo aut tres mali in prora, (medius rectus, reliqui inclinati,) quorum vela propendeant; et quoad secundum, ut amplientur vela proræ in summo, et sint minus, quam solent esse, acuminata. Sed in utroque eavendum incommodo periculi ex nimia depressione navis.

MOTUS VENTORUM IN ALIIS MACHINIS HUMANIS.

1. Motus molendinorum ad ventum nihil habet subtilitatis, et nihilominus non bene demonstrari et explicari solet. Vela constituuntur recta in oppositum venti flantis. Prostat autem in ventum unum latus veli, alterum latus paulatim flectit se et subducit a vento. Conversio autem sive consecutio motus fit semper a latere inferiore, hoc est, eo quod remotius est a vento. At ventus superfundens se in adversum machinæ, a quatuor velis arctatur, et in quatuor intervallis viam suam inire eogitur. Eam compressionem non bene tolerat ventus; itaque necesse est ut tanquam cubito percutiat latera velorum, et proinde vertat, quemadmodum ludicra vertibula digito impelli et verti solent.

2. Quod si vela ex æquo expansa essent, dubia res esset ex qua parte forct inclinatio, ut in casu baculi; cum autem proximum latus, quod occurrit vento, impetum ejus dejiciat in latus inferius, atque illinc in spatia, cumque latus inferius ventum excipiat, tanquam palma manus, aut instar veli scaphæ, fit protinus conversio ab ea parte. Notandum autem est, originem motus esse non a prima impulsione quæ fit in fronte; sed a laterali impulsione post compressionem.

3. Probationcs quasdam et experimenta circa hoc, pro augendo hoc motu, fecimus, tum ad pignus causæ recte inventæ, tum ad usum; imitamenta hujus motus effingentes in velis ex chartis, et vento ex follibus. Igitur addidimus lateri veli inferiori plicam inversam a vento, ut haberet ventus, lateralis jam factus, amplius quiddam quod percuteret; nec profuit, plica illa non tam percussionem venti adjuvante, quam sectionem aëris in consequentia impediente. Locavimus post vela ad nonnullam distantiam obstacula, in latitudinem diametri omnium velorum, ut ventus magis compressus fortius percuteret; at hoc obfuit potius, repercussione motum primarium hebetante. At vela fecimus latiora in duplum, ut ventus arctaretur magis, et fieret percussio lateralis fortior: Hoc tandem magnopere successit; ut et longe mitiore flatu fieret conversio, et longe magis pernicitef volveretur.

Mandatum.

Fortasse hoc augmentum motus commodius fiet per octo vela, quam per vela quatuor, latitudine duplicata; nisi forte

nimia moles aggravaverit motum. De hoc fiat experimentum.

Mandatum. Etiam longitudo velorum facit ad motum. Nam in rotatioaibns levis violentia versus circumferentiam æquiparatur longe majori versus centrum. Sed tamen hoc conjungitur incommodum, quod quo longiora sunt vela, eo plus distant in summo, et minus arctatur ventus. Res non male fortasse se habeat, si vela sint paulo longiora, sed crescentia in latum circa summitatem, ut palma remi: sed de hoc nobis compertum non est.

Monitum. In his experimentis, si ponantur in usu ad molendina, robori totius machinæ, præcipue fundamentis ejus, subveniendum. Nam quanto magis arctatnr ventus, tanto magis (licet motum velorum ineitet) tamen machinam ipsam concutit.

4. Traditur alicubi esse rhedas moventes ad ventum; de hoc diligentius inquiratur.

Mandatum. Rhedæ moventes ad ventum non poterunt esse operæ pretium, nisi in locis apertis et planitiebus. Præterea quid fiet, si deeubuerit ventus? Magis sobria esset cogitatio de faeilitando motu curruum et plaustrorum per vela mobilia, ut equi vel boves minoribns viribus ea traherent, quam de creando motu per ventum solum.

PROONOSTICA VENTORUM.

Ad Art. 32. Connexio. Divinatio quo magis pollui solet vanitate et superstitione, eo purior pars ejus magis receipienda et colenda. Naturalis vero divinatio aliquando certior est, aliquando magis in lubrieo, prout subjectum se habet, circa quod versatur: qnod si fuerit naturæ constantis et regularis, certam efficit prædietionem; si variæ et compositæ, tanqnam ex natura et easu, fallacem.

Attamen etiam in subjecto vario, si diligenter canonizetur, tenebit prædietio ut plurimum; temporis forte momenta non asseqnetur, a re non multum errabit. Quin etiam quoad tempora eventus et complementi, nonnullæ prædietiones satis certo collimabunt, eæ videlicet, quæ sumuntur non a eausis, verum ab ipsa re jam inchoata, sed citius se prodente in materia proclivi, et aptius disposita, quam in alia; ut in topieis circa hunc 32um articulum superius diximus. Prognostica igitur ventorum jam proponemus, miscentes nonnihil necessario de prognosticis pluviarum et serenitatis, quæ bene distrahi non poterant; sed justam de illis inquisitionem propriis titulis remittentes.

1. Sol, si oriens cernatur coneavus, dabit eo ipso die ventos aut imbres; si appareat tanquam leviter excavatus, ventos; si eavus in profnndo, imbres.

2. Si sol oriatur pallidus et (ut nos loquimur) aqneus, denotat pluviam; si occidat pallidus, ventum.

3. Si corpus ipsum solis in occasu cernatur tanquam sanguineum, præmonstrat magnos ventos in plures dies.

4. Si in exortu solis radii ejus speetantur rutili, non flavi, denotat pluvias potius quam ventos; idemque, si tales appareant in oceasu.

5. Si in ortu aut occasu solis speetantur radii ejus tanquam contracti aut curtati, neque eainent illustres, licet nubes absint, significat imbres potius quam ventos.

6. Si ante ortum solis ostendent se radii præcursores, et ventum denotat et imbres.

7. Si in exortu solis porrigat sol radios e nubibus, medio solis manente cooperto nubibus, significabit pluviam; maxime si erumpant radii illi deorsum, ut sol cernatur tanquam barbatus: quod si radii erumpant e medio, aut sparsim, orbe exteriore cooperto nubibus, magnas dabit tempestates et ventorum et imbrium.

8. Si sol oriens eingitur circulo, a qua parte is circulus se aperuerit, expectetur ventus; sin totus circulus æqualiter defluxerit, dabit serenitatem.

9. Si sub occasnm solis appareat circa eum circulus candidus, levem denotat tempestatem eadem nocte; si ater, aut subfuscus, ventum magnum in diem seqaentem.

10. Si nubes rubescant exoriente sole, prædieunt ventum; si occidente, serenum in posterum.

11. Si sub exortum solis globabunt se nubes prope solem, denuneiant eodem die tempestatem asperam; quod si ab ortu repellantur, et ad oceasum abibunt, serenitatem.

12. Si in exortu solis dispergantur nubes a lateribus solis, aliæ petentes austrum, aliæ septentrionem; licet sit cœlum serenum circa ipsum solem, præmonstrat ventos.

13. Si sol sub nube condatur occidens, pluviam denotat in posterum diem; quod si plane pluet occidente sole, ventos potius; sin nubes videantur quasi trahi versus solem, et ventos et tempestatem.

14. Si nubes, exoriente sole, videantur non ambire solem, sed incumbere ei desuper, tanquam eclipsim facturæ, portendunt veatos ex ea parte orituros, qua illæ nubes inelinaverint. Quod si hoc faciant meridie, et venti fient et imbres.

15. Si nubes solem circumcluserint, quanto minus luminis relinquetur, et magis pnsillus apparebit orbis solis, tanto turbidior erit tempestas: si vero duplex aut triplex orbis erit, ut appareant tanquam duo aut tres soles, tanto erit tempestas atrocior per plures dies.

16. Novilunia dispositionum aëris significativa sunt; sed magis adhuc ortus qnartus, tanquam novilunium confirmatum. Plenilunia autem ipsa præsagiunt magis, quam dies aliqui ab ipsis.

17. Diuturna observatione quinta lunæ suspecta est nautis, ob tempestates.

18. Si luna a novilunio ante diem quartum non apparuerit, turbidum aërem per totum mensem prædicit.

19. Si luna nascens, aut intra primos dies, eornu habuerit inferius magis obscurum aut fuscum, aut qnovis modo non purum; dies turbidos et tempestates dabit ante plenilunium: si circa medium fuerit decolor, circa ipsum plenilunium sequentur tempestates; si eornu superius hoc patiatur, circa lunam decrescentem.

20. Si ortu in quarto pura ibit luna per cœlum, nec cornibus obtusis, neque prorsus jacens, neque prorsus recta, sed mediocris; serenitatem promittit majore ex parte usque ad novilunium.

21. Si in ortu illo rubicunda fuerit, ventos portendit; si rubiginosa aut obatra, pluvias; sed nil horum significat ultra plenilunium.

22. Recta luna semper fere minax est et infesta, potissimum autem denuneiat ventos; at si appareat eornibus obtusis et curtatis, imbres potius.

23. Si alterum eornu lunæ magis acuminatum fuerit et rigidum, altero magis obtuso, ventos potius significat; si utrumque, pluviam.

24. Si circulus aut halo circa lunam appareat, plnviam potius significat quam ventos; nisi stet recta luna intra eum eireulum, tum vero utrumque.

25. Circuli eirca lunam ventos semper denotant ex parte qua ruperint; etiam splendor illustris eircnli in aliqua parte, ventos ex ea parte qua splendet.

26. Cireuli eirca lunam, si fuerint duplices aut tripliees, præmonstrant horridas et asperas tempestates; at multo magis, si illi circuli non fuerint integri, sed maculosi et interstincti.

27. Plenilunia, quoad eolures et halones, eadem forte denotant, quæ ortus quartus; sed magis præsentia, nec tam procrastinata.

28. Plenilunia solent esse magis serena quam cæteræ ætates lunæ; sed eadem, hieme, quandoque intensiora dant frigora.

29. Luna sub occasum solis ampliata, et tamen luminosa, nec subfusca, serenitatem portat in plures dies.

30. Eclipses lunæ quasi semper eomitantur venti; solis, serenitas; pluviæ raro alterutrum.

31. A eonjunetionibus reliquis planetarum præter solem expectabis ventos, et ante et post; a eonjunetionibus eum sole, serenitatem.

32. In exortu pleiadum et hyadum seqnuntur imbres et pluviæ, sed tranqnillæ; in exortu orionis et areturi, tempestates.

33. Stellæ (ut loquimur) discurrentes et sagittantes protinus ventos indieant ex ea parte, unde vibrantur. Quod si ex variis ant etiam eontrariis partibus volitent, magnas tempestates et ventorum et imbrium.

34. Cum non conspieiantur stellæ minnsculæ, quales sunt quas vocant asellos, idque fit ubique per totum cœlum, magnas præmonstrat tempestates et imbres intra aliquot dies: quod si alieubi stellæ minutæ obscurentur, alieubi sint elaræ, ventos tantum, sed citins.

35. Cœlum æqualiter splendens in noviluniis, aut ortu quarto, serenitatem dabit per plures dies; æqualiter obscurum, imbres; inæqualiter, ventos, ab ea parte qua eerniter obscuratio. Quod si subito fiat obscuratio sine nube aut caligine, quæ fulgorem stellarum perstringat, graves et asperæ instant tempestates.

36. Si planetarum aut stellarum majorum aliquam ineluserit eireulus integer, imbres prædieit; si fractus, ventos ad eas partes, ubi eireulus deficit.

37. Cum tonat vehementius quam fulgurat, ventos dabit magnos; sin erebro inter tonandum fulserit, imbres eonfertos et grandibus guttis.

38. Tonitrua matutina ventos significant; meridiana imbres.

39. Tonitrua mugientia, et veluti transeuntia, ventos significant; at quæ inæquales habent fragores et acutos, procellas, tam ventorum quam imbrium.

40. Cum cœlo sereno fulguraverit, non longe absunt venti et imbres ab ea parte, qua fulgurat; quod si ex diversis partibus cœli fulguraverit, sequentur atroces et horridæ tempestates.

41. Si fulguraverit a plagis cœli gelidioribus, septentrione et aquilone, sequentur grandines; si a tepidioribus, austro et zephyro, imbres eum eœlo æstuoso.

42. Magni fervores post solstitium æstivale desinunt plerumque in tonitru et fulgura; quæ si non sequantur, desinunt in ventos et pluvias per plures dies.

43. Globus flammæ, quem Castorem vocabant antiqui, qui eernitur navigantibus in mari, si fuerit unicus, atrocem tempestatem prænnnciat, (Castor scilieet est frater intermortuus,) at multo magis, si non hæserit malo, sed volvatur aut saltet; quod si fuerint gemini, (præsente scilieet Pollnee fratre vivo,) idque tempestate adulta, salutare signum habetur: sin fuerint tres (superveniente scilieet Helena, peste rerum) magis dira ineumbet tempestas: videtur sane unieus, erudam significare materiam tempestatis; duplex, quasi eoctam et maturam; triplex vel multiplex, eopiam ægre dissipabilem.

44. Si conspiciantur nubes ferri incitatius cœlo sereno, expectentur ventl ab ea parte, a qua feruntur nubes. Quod si globabuntur et glomerabunt simul, eum sol appropinquaverit ad eam partem, in qua globantur, ineipient discuti; quod si discutientur magis versus boream, signifieat ventum; si versus austrum, pluvias.

45. Si occidente sole nubes orientur atræ aut fuseæ, imbrem significant: si adversus solem, in oriente scilieet, eadem nocte; si juxta solem ab occidente, in posterum diem, eum ventis.

46. Liquidatio, sive disserenatio cœli nubili, incipiens in eontrarium ventl, qul flat, serenitatem signifieat; sed a parte ventl, nihil indieat, sed ineerta res est.

47. Conspiciuntur quandoque plures, veluti eameræ aut eontignationes nnbium, altera supra alteras, (ut aliquando quinque simul se videsse, et notasse affirmet Gilbertus,) et semper atriores sunt infimæ, lieet quandoque seeus appareat, quia eandidiores visum magis lacessnnt. Duplex eontignatio, si sit spissior, pluvias denotat instantes (præsertim si nubes inferior eernatur quasi gravida); plnres eontignationes perendinant pluvias.

48. Nubes, si ut vellera lanæ spargantur, hinc inde tempestates denotant; qnod si, instar squammarum aut testarum, altera alteri ineumbat, siceitatem et serenitatem.

49. Nubes plumatæ et similes ramis palmæ, ant floribus iridis, imbres protinus, non ita multo post, denunciant.

50. Cum montes et eolles eonspieiantur veluti pileati, ineumbentibus in illos nubibus, eosque eircumamplectentibus, tempestates præmonstrant imminentes.

51. Nubes eleetrinæ et aureæ ante occasum solis, et tanquam eum fimbriis deauratis, postquam sol magis eondi cœperit, serenitates præmonstrant.

52. Nubes luteæ, et tanquam eœnosæ, signifieant imbrem cum vento instare.

53. Nubecula aliqua non ante visa subito se monstrans, cœlo circum sereno, præsertim ab occidente aut circa meridiem, tempestatem iudicat iugruentem.

54. Nebulæ et caligines ascendentes, et sursum se recipieutes, pluvias; et si subito hoc fiat, ut tanquam sorbeantur, ventos prædicunt; at cadentes et in vallibus residentes, sereuitatem.

55. Nube gravida caudicaute, quam vocant autiqui tempestatem albam, sequitur, æstate, grandu minuta instar coufituræ; hieme, nix.

56. Autumuus serenus ventosam hiemem præmonstrat; ventosa hiems, ver pluviosum; ver pluviosum, æstatem serenam; serena æstas, autumnum ventosum. Ita ut annus (ut proverbio dicitur) sibi debitor raro sit; ueque cadem series tempestatum redeat per duos annos simul.

57. Ignes in focis pallidiores solito, atque intra se murmurantes, tempestates uuuciaut: quod si flamma flexuose volitet et sinuet, ventum præcipue: at fungi, sive tuberes in lucernis, pluvias potius.

58. Carbones clarius perlucentes, ventum significant; etiam cum favillas ex se citius discutiunt et deponunt.

59. Mure cum conspicitur in portu tranquillum in superficie, et nihilominus iutra se murmuraverit, licet non intumuerit, ventum prædicit.

60. Littora in tranquillo resonantia, marisque ipsius sonitus cum plangore aut quadam echo clarius et longius solito auditus, ventos prænunciant.

61. Si iu tranquillo et plana superficie maris couspiciautur spumæ hiuc inde, aut coronæ albæ, aut aquarum bullæ, ventos prædicunt; et si hæc signa fuerint insigniora, asperas tempestates.

62. Iu mari fluctibus agitato si appareant spumæ coroscantes, (quas pulmones marinos vocant,) prænunciant duraturam tempestatem in plures dies.

63. Si mare silentio intumescat, et intrn portum altius solito insurgat, aut æstus ad littora celerius solito accedat, ventos prænunciat.

64. Sonitus a montibus, nemorumque murmur increbresceus, atque fragor etiam nonnullus iu campestribus, ventos portendit. Cœli quoque murmur prodigiosum absque tonitru, ad ventos muxime spectat.

65. Folia et paleæ ludentes sine aura, quæ sentiatur, et lauugines plantarum volitantes, plumæque in aquis inuatantes et colludentes, veutos udesse nunciant.

66. Avea uquaticæ concursantes et gregatim volautes, mergique præcipue et fulicæ a mari aut stagnis fugientes, et ad littora aut ripas properantes, præsertim cum clangore, et ludentes in sicco, ventos prænunciunt, maxime si hoc faciant mane.

67. At terrestres volucres contra, aquam peteutes, eamque alis percutieutes, et clangores dautes, et se perfundeutes; ac præcipue cornix, tempestates portenduut.

68. Mergi anatesque ante ventum pennas rostro purgant; at anseres clungore suo importuno pluviam invocant.

69. Ardea petens excelsa, adeo ut nubem quandoque humilem supervolare conspiciatur, ventum significat. At milvi contra, in sublimi volantes, serenitatem.

70. Covi singultu quodam latrantes, si continuabunt, ventos denotant; si vero carptim vocem resorbebuut, aut per iutervalla longiora crocitabunt, imbres.

71. Noctua garrula putabatur ab antiquis mutatiouem tempestatis præmonstrare; si in sereno, imbres; si in nubilo, serenitatem; at apud nos, noctua, clare et libenter ululaus, serenitates plerumque indicat, præcipue hieme.

72. Aves in arboribus habitautes, si iu uidos suos sedulo fugiteut et u pabulo eitius recedaut, tempestates præmonstrant; urdea vero in arena stans tristis, aut corvus spatians, imbres tantum.

73. Delphini tranquillo mari lascivientes flatum existimantur prædicere, ex qua veuiunt parte; at turbato lndentes et aquam spargentes, contra, sereuitatem: at plerique piscium in summo natantes, aut quaudoque exilientes, pluviam significaut.

74. Ingruente vento, sues ita terrentur, et turbantur, et incomposite aguut, ut rustici dicant illud solum animal videre veutum, specie scilicet horrendum.

75. Paulo unte ventum araneæ sedulo laborant, et nent, ac si provide præoccuparent, quia vento flaute uare nequeunt.

76. Ante pluviam campanarum sonitus auditur magis ex longinquo; at aute ventum, auditur magis inæqualiter, accedens et recedeus, qnemadmodum fit vento manifesto flante.

77. Trifolium inhorrescere, et folia contra tempestatem subrigere, pro certo ponit Plinius.

78. Idem uit vasa, in quibus esculenta repouuntur, quaudoque sudorem in repositoriis relinquere, idque diras tempestates prænunciare.

Monitum. Cum pluvia et venti habeant materiam fere commuuem; cumque ventum semper præcedut nonnulla condensatio aëris, ex aëre noviter facto intra veterem recepto, ut ex plungoribus littorum, et excelso volatu ardeæ et aliis patet; cumque pluviam similiter præcedat aëris coudensatio, (sed aër in pluvia postea contrahitur magis, iu ventis contra excrescit,) necesse est, ut pluviæ habeaut complura prognostica cum ventis communia. De iis consule prognostica pluviarum, sub titulo suo.

IMITAMENTA VANTORUM.

Ad Art. 33. Connexio. Si animum homines inducere possent, ut contemplationes suas in subjecto sibi proposito non nimium figerent, et cætera tanquam parerga rejicerent; nec circa ipsum subjectum in infinitum, et plerumque inutiliter subtilizarent; haudquaquam talis, qualis solet, occuparet ipsos stupor, sed transferendo cogitationes suas, et discurrendo, plurima invenirent in loug inquoquæ prope latent. Itaque ut in jure civili, ita in jure naturæ, procedendum animo sagaci ad similia et conformia.

1. Folles apud homines Æoli utres sunt: unde ventum quis promere possit, pro modulo nostro. Etiam interstitia et fauces montium, et ædificiorum anfractus, non alia sunt quam folles majores. In usu uutem sunt folles præcipue, aut ad excitutionem flammarum, uut ad organa musica. Follium autem ratio est, ut sugant aërem propter rationem vacui, (ut loquuntur,) et emittant per compressionem.

2. Etiam fiabellis utimur manualibus ad facien-

dum ventum et refrigeria, impellendo solummodo aërem leniter.

3. De cœnaculorum æstivorum refrigeriis quædam posuimus in responso ad artic. 9um. Possunt inveniri alii modi magis aceurati, præsertim si, follium modo, alicubi attrahatur aër, alicubi emittatur. Sed ea, quæ jam in usu sunt, ad simplicem compressionem tantum referuntur.

4. Flatus in microcosmo et animalibus eum ventis in mundo majore optime conveniunt; nam et ex humore gignuntur, et cum humore alternant, ut faciunt venti et pluviæ; et a ealore fortiore dissipantur et perspirant. Ab illis autem transferenda est certe ea observatio ad ventos; quod scilicet gignantur flatus ex materia quæ dat vaporem tenaceni, nec facile resolubilem; ut fabæ, et legumina, et fructus; quod etiam eodem modo se habet in ventis majoribus.

5. In destillatione vitrioli et aliorum fossilium, quæ sunt magis flatuosa, opus est receptaculis valde capacibus, et amplis, alioqui effringentur.

6. Ventus factus ex nitro commisto in pulvere pyrio, erumpens, et inflans flammam, ventos in universo (exceptis fulminosis) non tantum imitatur, sed exsuperat.

7. Hujus autem vires premuntur in machinis humanis, ut in bombardis, et eunieulis, et domibus pulverariis incensis; utrum autem, si in aëre aperto magna pulveris pyrii moles incensa esset, ventum ex aëris eommotione, etiam ad plures horas, excitatura esset, nondum venit in experimentum.

8. Latet spiritus flatuosus et expansivus in argento vivo, adeo ut pulverum pyrium (ut quidam volunt) imitetur, et parum ex eo, pulveri pyrio admistum, eum reddat fortiorem. Etiam de auro loquuntur chemistæ, quod pericnlose, et fere tonitrui modo, in quibusdam præparationibus erumpat; sed de his mihi non eompertum est.

OBSERVATIO MAJOR.

Motus ventorum, tanquam in speculo, spectatur in motibus aquarum quoad plurima.

Venti magni sunt inundationes aëris, quales conspiciuntur inundationes aquarum; utræque ex aucto quanto. Quemadmodum aquæ aut descendunt ex alto, aut emanant e terra; ita et ventorum nonnulli sunt dejecti, nonnulli exsurgunt. Quemadmodum nonnunquam intra amnes sunt eontrarii motus; unus fluxus maris, alter cursus amnis; et nihilominus unicus efficitur motus, prævalente fluxu maris: ita et flantibus ventis contrariis, major in ordinem rediget minorem. Quemadmodum in eurrentibus maris, et quorundam amnium, aliquando evenit, ut gurges in summitate aquæ in contrarium vergat gurgiti in profundo: ita et in aëre, flantibus simul contrariis ventis, alter alterum supervolat. Quemadmodum sunt cataractæ pluviarum in spatio angusto; similiter et turbines ventorum. Quemadmodum aquæ, utcunque progrediantur, tamen si perturbatæ fuerint, interim undulant, modo ascendentes et eumulatæ, modo descendentes et sulcatæ; similiter faciunt et venti, nisi quod absit motus gravitatis. Sunt et aliæ similitudines, quæ ex iis, quæ inquisita sunt, notari possunt.

CANONES MOBILES DE VENTIS.

Canones aut particulares sunt aut generales; utrique mobiles apud nos. Connexio.

Nil enim adhuc pronunciamus. At particulares ex singulis fere articulis possunt deeerpi aut expromi; generales, eosque paucos, ipsi jam excerpemus et subjungemus.

1. Ventus non est aliud quippiam ab aëre moto, sed ipse aër motus; aut per impulsionem simplicem, aut per immistionem vaporum.

2. Venti per impulsionem aëris simplicem fiunt quatuor modis: aut per motum aëris naturalem, aut per expansionem aëris in viis solis, aut per receptionem aëris ex frigore subitaneo, aut per compressionem aëris per eorpora externa.

Possit esse et quintus modus, per agitationem et concussionem aëris ab astris: sed sileant paulisper hujusmodi res, aut audiantur parca fide.

3. Ventorum qui fiunt per immistionem vaporum præcipua causa est superoneratio aëris per aërem noviter factum ex vaporibus; unde moles aëris excrescit, et nova spatia quærit.

4. Quantum non magnum aëris superadditi magnum ciet tumorem in aëre circumquaque; ita ut aër ille novus ex resolutione vaporum plus conferat ad motum quam ad materiam; corpus autem magnum venti eonsistit ex aëre priore: neque aër novus aërem veterem ante se agit, ac si corpora separata essent; sed utraque commixta ampliorem locum desiderant.

5. Quando aliud concurrit principium motus præter ipsam superoneration em aëris, accessorium quippiam est illud, et principale fortificat et auget; unde fit, ut venti magni et impetuosi raro oriantur ex superonerationem aëris simplici.

6. Quatuor sunt accessoria ad superonerationem aëris: expiratio e subterraneis; dejectio ex media regione aëris (quam vocant); dissipatio ex nube facta; et mobilitas atque acrimonia exhalationis ipsius.

7. Motus venti quasi semper lateralis est; verum is qui fit per superoneration em simplicem, usque a principio; is qui fit per exspirationem e terra, aut repercussionem ab alto, non multo post; nisi eruptio, aut præcipitium, aut reverberatio, fuerint admodum violenta.

8. Aër nonnullam compressionem tolerat, antequam superoneration em percipiat et aërem contiguum impellat; ex quo fit, ut omnes venti sint paulo densiores quam aër quietus.

9. Sedantur venti quinque modis: aut coëuntibus vaporibus, aut incorporatis, aut sublimatis, aut transveetis, aut destitutis.

10. Coëunt vapores, atque adeo ipse aër in pluviam, quatuor modis: aut per copiam aggravantem, aut per frigora condensantia, aut per ventos contrarios compellentes, aut per obices repercutientes.

11. Tam vapores, quam exhalationes, materia ventorum sunt. Etenim ex exhalationibus nunquam pluvia, ex vaporibus sæpissime venti. At illud interest, quod facti venti ex vaporibus facilius se incorporant aëri puro, et citius sedantur, nec sint, tam obstinati, quam illi ex halitibus.

12. Modus, et diversæ conditiones caloris, non

minus possunt in generatione ventorum, quam copia, aut conditiones materiæ.

13. Solis calor in generatione ventorum ita proportionatus esse debet, ut eos excitet, sed non tanta copia, ut coëant in pluviam; nec tanta paucitate, ut prorsus discutiantur et dissipentur.

14. Venti spirant ex parte fomitum suorum; cumque fomites varie disponantur, diversi venti in plurimum simul spirant: sed fortior debiliorem aut obruit, aut flectit in currentem suum.

15. Ubique generantur venti ab ipsa terræ superficie usque ad frigidam regionem aëris; sed frequentiores in proximo, fortiores in sublimi.

16. Regiones, quæ habent ventos asseclas ex tepidis, sunt calidiores quam pro ratione climatis sui; quæ ex gelidis, frigidiores.

CHARTA HUMANA; SIVE OPTATIVA CUM PROXIMIS, CIRCA VENTOS.

Optativa. 1. *Vela navium ita componere et disponere, ut minore flatu majorem conficiant viam; res insigniter utilis ad compendia itinerum per mare, et parcendum impensis.*

Proximum. Proximum non occurrit adhuc inventum, præcise in practica. Sed consule de eo observationes majores super articulum 26um.

Optativa. 2. *Molendina ad ventum et vela ipsorum ita fabricari, ut minore flatu plus molant; res utilis ad lucrum.*

Proximum. Consule de hoc experimenta nostra in responso ad articulum 27um, ubi videtur res quasi peracta.

Optativa. 3. *Ventos orituros et occasuros, et tempora ipsorum prænoscere; res utilis ad navigationes et agriculturam; maxime autem ad electiones temporum ad prælia navalia.*

Proximum. Huc multa pertinunt eorum quæ in inquisitione, præsertim in responso ad articulum 32um, notata sunt. At observatio in posterum diligentior, (si quibus ea cordi erit,) patescente jam causa ventorum, longe exactiora prognostica præstabit.

Optativa. 4. *Judicium et prognostica facere per ventos de aliis rebus; veluti primo, si sint continentes aut insulæ in mari in aliquo loco, vel potius mare liberum; res utilis ad navigationes novas et incognitas.*

Proximum. Proximum est, observatio circa ventos statos; id quo usus videtur Columbus.

Optativa. 5. *Itidem de ubertate aut caritate fructuum et segetum annis singulis; res utilis ad lucrum, et venditiones anticipantes et coëmptiones, ut proditum est de Thalete circa monopolium olivarum.*

Proximum. Huc pertinent nonnulla in inquisitione posita de ventis, aut malignis, aut decussivis et temporibus quando nocent, ad articulum 29um.

Optativa. 6. *Itidem de morbis et pestilentiis annis singulis; res utilis ad existimationem medicorum si illa prædicere possint; etiam ad causas et curas morborum, et nonnulla alia civilia.*

Proximum. Huc pertinent etiam nonnulla in inquisitione posita, ad articulum 30um.

Monitum. De prædictionibus ex ventis, circa segetes, fructus, et morbos, consule historias agriculturæ et medicinæ.

Optativa. 7. *Ventos excitare et sedare.*

Proximum. De his habentur quædam superstitiosa et magica, quæ non videntur digna, quæ in Historiam naturalem seriam et severam recipiantur. Neque occurrit nobis aliquid proximum in hoc genere. Designatio ea esse poterit, ut natura aëris penitus introspiciatur et inquiratur; si possit inveniri aliquid, quod, in quantitate non magna in aërem immissum, possit excitare et multiplicare motum ad dilatationem aut contractionem in corpore aëris: ex hoc etenim (si fieri possit) sequentur excitationes et sedationes ventorum; quale est illud experimentum Plinii de aceto injecto in occursum turbinis, si verum foret. Altera designatio possit esse per emissionem ventorum ex subterraneis, si congregentur alicubi in magna copia; quale est illud receptum de puteo in Dalmatia; verum et loca hujusmodi carcerum nosse difficile.

Optativa. 8. *Complura ludicra et mira per motum ventorum efficere.*

Proximum. De his cogitationem suscipere nobis non est otium. Proximum est illud vulgatum duellorum ad ventum: proculdubio multa ejusmodi jucunda reperiri possunt, et ad motus et ad sonos.

HISTORIA DENSI ET RARI;

NECNON

COITIONIS ET EXPANSIONIS MATERIÆ PER SPATIA.

ADITUS.

Nil mirum, si natura philosophiæ et scientiis debitrix sit, cum ad reddendas rationes nunquam adhuc sit interpellata. Neque enim de quanto materiæ, et quomodu illud per corpora sit distributum (in aliis copiose, in aliis parce) instituta est inquisitio diligens et dispensatoria, secundnm veros aut proximos veris calculos. Illud recte receptum est, "Nil deperdi aut addi summæ universali:" etiam traelatus est a nonnullis ille locus, "quomodo corpora laxari possint et contrahi, absque vacuo inlermisto, secundum plus et minus." Densi aulem et rari naturas alius ad copiam et paucitatem materiæ retulit, alius hoc ipsum elusit; plerique auctorem suum secuti, rem totam per frigidam illam dislinctionem actus et potentiæ disculiunt et componunt. Etiam qui illa materiæ rationibus attribuunt (quæ vera est sententia) neque materiam primam quanto plane spoliatam, licet ad alias formas æquam, volunt; tamen in hoc ipso inquisitionem terminant, ulterius nihil quærunt, neque quid inde sequatur perspiciunt; remque, quæ ad infinila spectat, et naturalis philosophiæ veluti basis est, aut non attingunt, aut non urgent.

Primo igitur, quod bene positum est, non movendum: non scilicet fieri in aliqua transmutatione corporum transactionem aut a nihilo, aut ad nihilum; sed opera esse ejusdem omnipotentiæ, creare ex nihilo, et redigere in nihilum: ex cursu naturæ vero hoc nunquam fieri. Itaque summa maleriæ totalis semper constat; *nil additur, nil minuitur:* at istam summam inter corpora per portiones dividi, nemini dubium esse possit. Neque enim quisquam subtililatibus abstractis tam dementatus esse queat, ut existimet lantum materiæ inesse dolio aquæ, quantum decem doliis aquæ; neque similiter dolio aëris, quantum decem doliis aëris. At in corpore eodem non dubitalur, quin copia materiæ multiplicetur pro mensura corporis: in corporibus diversis ambigitur. Quod si demonstrelur, unum dolium aquæ in aërem versum, decem dare dolia aëris, (istam enim computationem propter opinionem receptam sumimus, licet centupla verior sit,) benc habet: elenim jam non amplius sunt diversa corpora, aqua et aër, sed idem corpus aëris in decem doliis. At unum dolium aëris (ut modo concessum est) decima tantum pars est decem doliorum.

Itaque resisti jam non potest, quin in uno dolio aquæ decuplo plus sit materiæ, quam in uno dolio aëris. Itaque, si quis asserat dolium aquæ totum in dolium aëris unicum verti posse, idem prorsus est ac si asserat aliquid posse redigi ad nihilum. Etenim una decima aquæ ad hoc sufficiet, reliquæ novem parles necesse est ut annihilentur. Contra, si quis asserat dolium aëris in dolium aquæ verti posse, idem est ac si asserat aliquid posse ereari ex nihilo. Etenim dolium aëris, nisi ad decimam partem dolii aquæ attingel, reliquæ novem partes necesse est ut fiant ex nihilo. Illud interim plane confitemur de rationibus, el calculis, et quota parte quanti materiæ, quæ diversis corporibus subest, et qua industria et sagacitate de illis informatio vera capi possit, ardusm inquisitionem esse; quam tamen ingens et latissime fusa utilitas compenset. Nam et densitates et raritates corporum nosse, et multo magis condensationes et rarefactiones procurare et efficere, maxime interest et contemplativæ et practicæ. Cum igitur sit res (si qua alia) plane fundamenlalis et catholica, accincti debemus ad eam accedere; quandoquidem omnis philosophia absque ea penitus discincta et dissoluta sit.

TABULA COITIONIS ET EXPANSIONIS MATERIÆ PER SPATIA IN TANGIBILIBUS (QUÆ SCILICET BOTANTUA PONDERE) CUM SUPPUTATIONE RATIONUM IN CORPORIBUS DIVERSIS.

IDEM SPATIUM OCCUPANT, SIVE ÆQUE EXPANSIGUNTUR.

	Den.	Gr.
Auri puri	20.	0.
Argenti vivi	19.	9.
Plumbi	12.	1¼.
Argenti puri	10.	21.
Plumbi cinericei, Anglice Tin-glass.	10.	12.
Cupri	9.	8.
Aurichalci	9.	5.
Chalybis	8.	10.
Aëris communis	8.	9.
Ferri	8.	6.
Stanni	7.	22.
Magnetis	5.	12.
Lapidis Lydii	3.	1.
Marmoris	2.	22¾.
Silicis	2.	22½.
Vitri	2.	20½.
Crystalli	2.	18.
Alabastri	2.	12.
Salis gemmæ	2.	10.
Luti communis	2.	8½.
Luti albi	2.	5½.
Nitri	2.	5.
Ossis bovis	2.	5.
Pulveris margaritarum	2.	2.
Sulphuris	2.	2.
Terræ communis	2.	1¼.
Vitrioli albi	1.	22.
Eboris	1.	21¼.
Alaminis	1.	21.
Olei vitrioli	1	21.
Arenæ albæ	1.	20.
Cretæ	1.	18¾.
Olei sulphuris	1.	18.
Pulveris salis communis	1.	10.
Ligni vitæ	1	10.
Carnis ovillæ	1.	10.
Aquæ fortis	1.	7.
Cornu bovis	1.	6.

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	Den.	Gr.
Balsami Indi	1.	6.
Crebri vitulini crudi	1.	5. paul.
Sanguinis ovilli	1.	5. min.
Ligni santali rubei	1.	5.
Gagatis	1.	5.
Cepæ recentis	1.	5.
Lactis vaccini	1.	4½.
Caphuræ	1.	4.
Succi menthæ expressi	1.	4.
Succi boraginis expressi	1.	3½.
Cervisiæ lupulatæ fortis	1.	3½.
Ligni ebeni	1.	3½.
Pulveris seminis fœniculi dulcis	1.	3½.
Aceti	1.	3½.
Agrestæ, ex pomis acerbis	1.	3.
Succini lucidi	1.	3.
Urinæ	1.	3.
Aquæ communis	1.	3. paul.
Olei caryophyllorum chemici	1.	3. paul. min.
Vini clareti	1.	2½.

	Den.	Gr.
Pulveris sacchari albi	1.	2½.
Ceræ flavæ	1.	2.
Radicis Chinæ	1.	2.
Carnis pyri brumalis crudi.	1.	2.
Aceti distillati	1.	1.
Aquæ rosaceæ distillatæ	1.	1.
Cineris communis	1.	0½.
Myrrhæ	1.	0.
Benjovin	1.	0.
Butyri	1.	0.
Adipis	1.	0.
Olei amygdalini dulcis	0.	23½.
Olei maceris viridis expressi	0.	23½.
Pulveris herbæ sampsuchi	0.	23.
Petrolei	0.	23.
Pulveris florum rosæ	0.	22.
Spiritus vini	0.	22.
Ligni quercus	0.	19½.
Pulveris fuligitis communis e camino	0.	17.
Ligni abietis	0.	15.

MODUS EXPERIMENTI CIRCA TABULAM SUPRASCRIPTAM.

INTELLIGUNTUR pondera, quibus usi sumus, ejus generis et computationis, quibus aurifabri utuntur; ut libra capiat uncias 12, uncia 20 denarios, denarius grana 24. Delegimus autem corpus auri puri, ad cujus exporrectionis mensuram reliquorum corporum rationes applicaremus, non tantum quia gravissimum, sed quia maxime unum et sui simile, nihil habens ex volatili. Experimentum fuit tale: unciam auri puri in figuram aleæ sive cubi efformavimus; dein situlam parvam, quadratam, ex argento paravimus, quæ cubum illum auri caperet, atque ei exacte conveniret; nisi quod situla esset nonnihil altior; ita tamen ut locus intra situlam, quo cubus ille auri ascenderat, linea conspicua signaretur. Id fecimus liquorum et pulverum gratia; ut cum liquor aliquis intra eandem situlam immittendus esset, non difflueret, sed paulo interius se contineret. Simul autem aliam situlam fieri fecimus, quæ cum altera illa, pondere et contento, prorsus par esset; ut in pari situla corporis contenti tantum ratio appareret. Tum cubos ejusdem magnitudinis sive dimensi fieri fecimus, in omnibus materiis in tabula specificatis, quæ sectionem pati possent; liquoribus vero ex tempore usi sumus, implendo scilicet situlam, quousque liquor ad locum illum linea signatum ascenderet: pulveribus eodem modo. Sed intelligantur pulveres maxime et fortiter compressi. Hoc enim potissimum ad æquationem pertinet, nec casum recipit. Itaque non alia fuit probatio, quam ut una ex situlis vacua in una lance, altera cum corpore in altera lance poneretur; et ratio ponderis corporis contenti per se exciperetur. Quanto vero pondus corporis pondere auri est minus, tanto exporrectio corporis est exporrectione auri major. Exempli gratia, cum auri ille cubus det unciam unam, myrrhæ vero denarium unum; liquet, exporrectionem myrrhæ ad exporrectionem auri habere rationem viceuplam: ut vicies plus materiæ sit in auro quam in myrrha, in simili spatio; rursus, vicies plus exporrectionis sit in myrrha quam in auro, in simili pondere.

1. Parvitas vasis, quo usi sumus, et forma etiam, (licet ad cubos illos recipiendos habilis et apta,) ad rationes exquisitas verificandas minus propria fuit. Nam nec minutias infra grani quadrantem facile excipere licebat; nec quadrata illa superficies in parvo, nec sensibili ascensu, sive altitudine, notabilem ponderis differentiam trahere potuit: contra quam fit in vasis in acutum surgentibus. Monita.

2. Minime dubium est, etiam complura corpora, quæ in tabula ponuntur, intra suam speciem magis et minus recipere, quoad pondera et spatia; nam et vina, et ligna ejusdem speciei, et nonnulla e reliquis, sunt certe alia aliis graviora. Itaque quoad calculationem exquisitam, casum quendam ista res recipit; neque ea individua, in quæ experimentum nostrum incidit, naturam speciei exacte referre, neque cum aliorum experimentis fortasse omnino in minimis consentire possunt.

3. In tabulam superiorem conjecimus ea corpora, quæ spatium sive mensuram commode implere, corpore integro et tanquam similari, possent; quæque etiam pondus habeant, ex cujus rationibus de materiæ coacervatione judicium fecimus. Itaque tria genera corporum huc retrahi non poterant; primo, ea quæ dimensioni cubicæ satisfacere non poterant: ut folia, flores, pelliculæ, membranæ: secundo, corpora inæqualiter cava et porosa; ut spongia, suber, vellera: tertio, pneumatica, quia pondere non dotantur; ut aër, flamma.

4. Videndum, num forte contractio corporis arctior ex vi unita nanciscatur majorem rationem ponderis, quam pro quantitate materiæ. Id, utrum fiat necne, ex historia propria ponderis inquiratur. Quod si fiat, fallit certe supputatio: et quo corpora sunt tenuiora, eo paulo plus habent materiæ in simili exporrectione, quam pro calculo ponderis et mensuræ quæ ex eo pendet.

5. Hanc tabulam multis abhinc annis confeci, atque (ut memini) bona usus diligentia. Verum possit proculdubio tabula multo exactior componi; videlicet, tum ex pluribus, tum ampliore quapiam mensura; id quod ad exactas rationes plurimum facit; et omnino paranda est, cum res sit ex fundamentalibus.

1. Licet, atque adeo juvat, animo prospicere, quam finita et comprehensibilis sit natura rerum in tangibilibus. Tabula enim naturam claudit tanquam in pugno. Nemo itaque expatietur, nemo fingat aut somniet. Non invenitur in tabula ens, quod aliud ens in copia materiæ superet, ultra proportionem tricesimam duplam: tanto enim superat aurum lignum abietis. De interioribus autem terræ nihil decernimus; cum nec sensui nec experimento subjiciantur. Illa, cum a calore cœlestium primo longius, deinde penitus, semota sint, possint esse corporibus nobis notis densiora. Observationes.

2. Opinio de compositione sublunarium ex quatuor elementis non bene cedit. Aurum enim in situla illa tabulari est ponderis Den. 20; terra communis Den. 2, paulo plus; aqua Den. 1. Gran. 33; aër, ignis, longe tenuiora et minus materiata, ponderis

vero nullius. At forma materiam non auget. Videndum igitur, quomodo ex corpore 2 Den. et eorporibus longe tenuioribus, edueatur per formam, in pari dimenso, corpus 20 Den. Duo sunt effugia: unum, quod elementa tenuiora compingant densiorem in majorem densitatem quam simplicis elementi; alterum, quod non intelligant Peripatetiei hoc de terra eommuni, sed de terra elementari, omni ente composito graviore. At ignis et aër non condensant, nisi per accidens, ut suo loco dicetor. Terra autem illa, quæ foret auro et omnibus gravior, ita sita est, ut vix adsit ad mistionem. Melius igitur foret, ut plane nugari desinant, et eesset dietatura.

3. Diligenter notanda est series sive scala coacervationis materiæ; et quomodo ascendat a coacervatione majore ad minorem: idque interdum per gradus, interdum per saltum. Si qnidem utilis est hæe eontemplatio, et ad judicium et ad praeticam. Coagmentatio metallica et subterranea maxima est; ita ut ex 32 illis partibus ocenpet duodecim: tantum enim distat aurum a stanno. In illo descensu ab auro et argento vivo magnus saltus ad plumbum. A plumbo ad stannum gradatio. Rursus magnus saltus a metallis ad lapides: nisi quod se interponat magnes, qui inde convincitur esse lapis metallicus. A lapidibus vero ad reliqua usqne ad levissimum, eontinui et pnsilli gradus.

Mandata. 1. Cum fons densitatis videatur esse in profundo terræ, adeo ut versus superficiem ejus corpora eximie extenuentur; illud notatu dignum est, quod aurum (quod est ex metallis gravissimnm) nihilominus reperiatur qnandoque in arenulis et ramentis fluviorum; etiam fere purum. Itaque inqnirendum diligentur de situ ejusmodi locorum; ntrum non sint ad pedes montium, quorum fundi et radices æqniparari possint mineris profundissimis, et aurum inde eluatur; aut qnid tandem sit, quod pariat tantam eondensationem versus summitates terræ.

2. De mineris in genere quærendnm, quæ ex iis soleant esse depressiores, et quæ propius ad superficiem terræ; et in quali situ regionum, et in qua gleba nascantur; et quomodo se habeant ad aquas; et maxime, in quibus eubilibus decumbant et jaceant; et qnomodo eircumdentnr, ant misceantur lapide, aut aliquo alio fossili: denique omnes circumstantiæ examinandæ, ut per istas explorari possit, qua ratione succi et spiritus terræ in condensationem istam metallicam (quæ reliquas longe superat) coëant aut compingantur.

Observationes. 4. Dubium minime est, quin et in vegetabilibus, atque etiam in partibus animalium, se ostendant corpora complurà ligno abietis longe leviora. Nam et lanugines nonnullarum plantarum, alæ mnscarum, et spolia serpentum; atque artificialia quoque diversa, ut lineus pannus extinctus (quali utimur ad fomites flammarum) et folia rosarum, quæ supersunt a distillatione, et hujusmodi, snperant levitate (ut putamus) ligna levissima.

5. Cohibenda et corrigenda est illa eogitatio, in quam intellectus humanus propendet, nempe, dura esse maxime densa. Nam argentum vivum fluit, aurum molle est et plumbum. Illa vero durissimis metallis (ferro et aëre) sunt densiora et graviora; lapidibus vero adhue multo magis.

6. In tabula multa eadunt præter opinionem: veluti quod metalla lapidibus tanto graviora; quod vitrum (corpus scilicet excoctum) erystallo (eorpore congiaciato) gravius; quod terra communis tam parum ponderosa; quod olea, aqua distillata vitrioli et sulphuris, ad pondus erudorum tam prope aeeedant; quod tam parum intersit inter pondus aquæ et vini; quod olea chemica (quæ subtiliora videri possint) oleis expressis ponderosiora; quod os sit dente et eornu tanto gravius; et alia similiter haud pauca.

Mandatum. 3. Natura densi et rari, licet eæteras naturas fere percurrat, neque secundum earum normas regatur, videtur solummodo magnum habere eonsensum cum gravi et levi. At suspicamur etiam eam posse habere eonsensum eum tarda et celeri exceptione et depositione ealidi et frigidi. Fiat igitur experimentum, si rarius corpus non admittat et amittat ealorem aut frigus eelerius, deusius vero tardius. Idque probetur in auro, plumbo, lapide, ligno, ete. Fiat autem in simili gradu caloris, simili quanto et figura corporis.

Vellicationes de practica. 1. Mixtura omnis eorporum per tabulam et pondera revelari et deprehendi potest. Si enim quæratur quantum aquæ sit admixtum vino, vel quantum plumbi auro, et sic de reliquis; ponderato compositum, et eonsule tabulam de pondere simplicium; et mediæ rationes compositi, comparatæ ad simplicia, dabunt quantum misturæ. Arbitror hoc esse *εὕρηκα* illud Archimedis; sed uteunque ita res est.

2. Confectio auri, aut transmutatio metallorum in illud, omnino pro suspeeta habenda est. Aurum enim omnium eorporum ponderosissimum et densissimum. Igitur, ut aliud qnippiam vertatur in aurum, prorsus eondensatione opus est. Condensatio autem (præsertim in corporibus valde materiatis, qnalia sunt metalla) apud nos homines in snperficie terræ degentes vix superinducitur: pleræque enim ignis densationes psendo-densationes snnt, si totum respieias (nt postea videbimus) hoc est, corpora in partibus aliquibus suis eondensant, totum minime.

3. Verum versio argenti vivi ant plumbi in argentum (enm argentum sit illis rarius) habenda est pro sperabili; cum tantum fixationem, et alia quædam innnat, non densationem.

4. Attamen si argentum vivum, aut plumbum, ant aliud metallum, verti posset in aurum quatenus ad eæteras auri proprietates, dempto pondere; ut, scilieet, fierent magis, quam sunt, fixa, magis malleabilia, magis seqnaeia, magis durabilia, et minus exposita rubigini, magis splendida, etiam flava, et hujusmodi; esset proculdubio res utilis et lucrativa, licet pondas auri non explerent.

Observatio. 7. Neque anro est ponderosius quiequam; neque ipsum aurum purum per artem (quatenus adhue innotuit) redditur sese ponderosius.

Historia. 1. Plumbum tamen notatum est et mole et pondere augeri; præsertim si condatnr in eellis subterraneis, ubi res situm facile colligunt. Id quod maxime deprehensum est in statuis lapideis, quarum pedes plumbeis vineulis

erant alligati; quæ vincula inventa sunt intumuisse, ut portiones illorum ex lapidibus penderent, quasi verruceæ. Utrum vero hoc fuerit auctio plumbi, an pullulatio vitrioli, inquiratur pleuius.

TABULA EXPORRECTIONIS MATERIÆ PER IDEM SPATIUM SIVE DIMENSUM, IN CORPORIBUS IISDEM INTEGRIS ET COMMINUTIS.

	Den. Gr.		Den. Gr.
Mercurius in corpore, quantus impleat mensuram tubularem, ponderat	19. 09.	Sublimatus vero in pulvere presso	3. 22.
Plumbum in corpore	12. 01½.	In cerussa vero in pulvere presso	3. 08½.
Chalybs in corpore	8. 10.	In pulvere præparato (quali ad medicinas utuntur) et presso	2. 09.
Crystallus in corpore	2. 18.	In pulvere presso	2. 20.
Santalum rubeum in corpore	1. 05.	In pulvere presso	0. 16½.
Lignum quercus in corpore	0. 19½.	In cinere	1. 02.

TABULA EXPORRECTIONIS MATERIÆ PER IDEM SPATIUM SIVE DIMENSUM, IN CORPORIBUS CAUNIS ET DISTILLATIS.

	Den. Gr.		Den. Gr.
Sulphur in corpore	2. 2.	In olen chemico	1. 18.
Vitriolum in corpore	1. 22.	In oleo	1. 21.
Vinum in corpore	1. 2¾.	In distillato	0. 22.
Acetum in corpore	1. 3¼.	In distillato	1. 1.

Monitum. 6. Modus versionis corporis in pulverem, ad apertionem sive expansionem corporis multum facit. Alia enim est ratio pulveris qui fit per simplicem contusionem, sive limaturam; alia ejus qui per sublimationem, ut in mercurio; alia ejus qui per aquas fortes et erosionem (vertendo ea tanquam in rubiginem) ut in eroco martis, et nonnihil in chalybe præparato; alia ejus qui per exustionem, ut cinis, calx. Itaque ista æquiparari nullo modo debent.

Mandatum. 4. Indigentissimæ sunt illæ duæ tabulæ priores. Ea demum foret tabula exacta corporum cum suis aperturis, quæ corporum singulorum integrorum pondera primo, dein pulverum suorum crudorum, dein cinerum, calcium, et rubiginum suarum, dein malagmatum suorum, dein vitrificationum suarum, (in iis quæ vitrificantur,) dein distillationum suarum, dein dissolutionum suarum, (subtracto pondere aquæ, in qua dissolvuntur,) nec non aliarum eorundem corporum alterationum, pondera exhiberet: ut hoc modo de corporum aperturis, et arctissimis naturæ integralis nexibus, judicium fieri posset.

Observationes. 8. Pulveres non sunt proprie corporum aperturæ, quia augmentum spatii fit non ex dilatatione corporis, sed ex interpositione aëris; attamen per hoc optime capitur æstimatio de corporum unione interiore, aut porositate. Nam quo corpora sunt magis unita, eo major intercedit differentia inter pulverem suum et corpus integrum. Igitur ratio argenti vivi crudi ad sublimatum in pulvere est quincupla, et amplius. Rationes chalybis et plumbi non ascendunt ad quadruplam. At in corporibus levioribus et porosis, laxior quandoque est positura partium in integris, quam in pulveribus pressis: ut in ligno quercus, gravior est cinis quam corpus ipsum: etiam in pulveribus ipsis, quo corpus est gravius, eo pressus pulvis minus habet dimensum ad non pressum. Nam in levioribus, pulverum partes ita se sustentare possunt, (utpote qui aërem intermistum minus premant et secent,) ut pulvis non pressus triplicem impleat mensuram ad pulverem pressum.

9. Distillata plerumque attenuantur, et pondere deerescunt; sed hoc facit vinum duplo plus quam aquetum.

Commentatio. 1. Atque tangibilia per familias jam censa sunt, tanquam divites et inopes. Restat altera classis, videlicet pneumaticorum. Ea vero pondere non dotantur, per cujus incubitum de exporrectione materiæ in ipsis contentæ judicium fieri possit. Opus est igitur alio quopiam interprete. At primum, species pneumaticorum proponendæ sunt; deinde comparatio facienda.

Quemadmodum in tangibilibus interiora terræ, ita in pneumaticis ætherea ad tempus seponimus.

Sunt pneumatica apud nos triplicis naturæ; inchoata, devineta, pura. Inchoata sunt fumi omnigeni, atque ex materiis diversis. Eorum ordo esse possit; primo, volatilium, quæ expirant ex metallis et ex nonnullis fossilium; quæ sunt (pront nomen significat) potius alata quam pneumatica; quia facile admodum coagulantur vel sublimando, vel eadendo, aut præcipitando. Secundo, vaporum; qui expirant ex aqua et aqueis. Tertio, fumorum (nomine generali retento); qui expirant ex corporibus siccis. Quarto, halituum; qui expirant ex corporibus oleosis. Quinto, aurarum; quæ expirant ex corporibus mole aqueis, spiritu inflammabilibus; qualia sunt vina, et liquores exaltati, sive potus fortes.

Est et aliud genus fumorum: illi scilicet in quos flamma desinit. Ii vero non possunt expirare, nisi ex inflammabilibus, cum flammam subsequantur. Hos post-fumos, seu fumos secundos, appellamus. Itaque non possunt esse post-vapores, quia aquea non inflammantur; sed post-fumi, (nomine speciali,) post-halitus, post-auræ; etiam, ut arbitror, post-volatilia, in nonnullis.

At pneumatica devineta ea sunt, quæ ipsa solitaria aut soluta non reperiuntur, sed tantum corporibus tangibilibus inclusa; quos spiritus etiam vulgo vocant. Participant autem et ex aqueo, et ex oleoso, et ex iisdem nutriuntur; quæ in pneumaticum versa, constituunt corpus veluti ex aëre et flamma; unde utriusque mysteria sunt. Accedunt autem spiritus isti (si ad pneumatica soluta spectes) proxime ad naturam aurarum, quales ex vino aut sale surgunt. Horum spirituum natura duplex; alia crudorum, alia vivorum. Crudi insunt omni tangibili; vivi animatis tantum, sive vegetabilibus sive sensibilibus. At pneumatica pura duo tantum inveniuntur, aër et flamma; licet illa quoque magnas diversitates sortiantur, et gradus exporrectionis inæquales.

TABULA PNEUMATICORUM, SECUNDUM COMMENTATIONEM SUPRADICTAM, PROUT ORDINE ASCENDUNT AD EXPORRECTIONEM MAJOREM.

Volatilia metallorum et fossilium:	Post-volatilia ipsorum:
	Vapores:

Fumi :	Spiritus crudi devincti in tangibilibus :
Post-fumi :	Aër :
Halitus :	Spiritus vivi, sive incensi, devincti in tangibilibus.
Post-halitus :	Flamma.
Auræ :	
Post-auræ :	

De exporrectionibus horum, tum ad invicem, tum ad tangibilia collatis, jam videndum. Atque si natura levis, per ascensum sursum, posset liquidare raritatem corporum, quemadmodum natura gravis, per descensum deorsum, liquidat eorum densitatem, res bene posset succedere. Sed multa obsunt. Primo, quod differentiæ motuum in iis, quæ aspectum fugiunt, non percipiantur immediate per sensum: deinde, quod non reperiatur in aëre, et similibus, tam fortis appetitus petendi superiora, quam putatur: denique, si aër moveretur sursum, tamen cum continuetur plerumque cum alio aëre, motus ille ægre percipi posset. Nam sicut aqua non ponderat super aquam; ita aër non insurgit subter aërem. Itaque alii modi excogitandi sunt.

Atque de exporrectione pneumaticorum ad invicem, quodque ordo et series raritatis, qualis in tabula ponitur, non leviter fundata sit, offerunt se quædam probationes non malæ: verum, de certis gradibus hujusmodi exporrectionis, et rursus de exporrectione pneumatici, comparati ad tangibile, difficilior certe est inquisitio.

Primo igitur fumos omnes, tam secundos quam primos, aëris raritatem non æquare consentaneum est; cum illi conspicui sint, aër minime; neque ipsi conspicui maneant paulo post, eam se aëri miscuerint.

Post-fumos præ-fumis esse tenuiores et rariores, satis liquet: eam sint flammæ (corporis tam subtilis) cadavera, et solutiones: experimento quoque manifestissimum est, in nocturnis spectaculis, intra cœnacula, quæ tot lychnis et facibus colluecnt, etiam post plurimum horarum moram, sufficere aërem respirationi, licet tot post-fumis in eum receptis. Quod si fuissent illi fumi præ-fumi, (quales sunt ex lychnis et facibus extinctis, absque flamma,) nemo, vel ad longe minorem moram, eos sustinere posset.

Spiritus crudos quoscunque in tangibilibus devinctos, etiam aëre densiores judicamus. Etenim spiritus vegetabiliam, aut animalium mortuorum, aut hujusmodi, cum exhalaverint, manifesto retinent quiddam ex crasso, sive tangibili: ut cerni datur in odoribus; qui cum sint fumi paree exeuntes, nec conferti, ut in fumis conspicuis et vaporibus, tamen, si nacti fuerint aliquid tangibile, præsertim ex mollioribus, applicant se ad illud, et plane adhærent, illudque odore inficiunt; ut manifestum sit, illos eam crassa natura affinitatem ægre dirimere.

At spiritus vivos aëre ipso aliquanto rariores existimamus: tum quia inflammantur nonnihil; tum quia diligenter experti sumus, aërem ad minuendum aut sublevandum pondus nihil conferre. Nam vesica inflata non est vacua et compressa levior, eum sit illa tamen repleta aëre; nec similiter spongia, aut vellus lanæ, aëre referta, illis ipsis vacuis leviora sunt, aëre exclaso. At corpus animale vivum et mortuum gravitate manifesto differant; licet haud tantum quantum putantur. Quare videtur aër pondus non minuere; spiritus autem vivus hoc facere. Atque cum pondus densitates dijudicet, etiam levatio ponderis raritates dijudicare debet.

Supremo ordine collocatur flamma; tum quia illa manifestissime petit superiora; tum quia verisimile est, rationes pneumaticorum minime differre a rationibus fumitum suorum; ideoque, quemadmodum olcum est rarius aqua, similiter flammam rariorem esse aëre et spiritu. Etiam videtur flamma corpus tenuius, et mollius, et magis cedens, quam aër. Nam levissima quæpiam aura, commota juxta flammam lychni, eam reddit tremulam.

Historia. 2. Quantam vero expansionem assequatur pneumaticum collatum ad tangibile, licet sit res ardua inventu, tamen curam de ejus inquisitione non abjecimus. Certissima autem visa est nobis fore probatio, si corporis aliquod tangibile (exporrectione ejus prius capta et mensurata) verti posset plane in pneumaticum, et deinde pneumatici illius exporrectio itidem notarctur; ut pensitatis utriusque rationibus, de multiplicatione dimensi evidens demonstratio fieri posset.

3. Accepimus igitur phialam vitream parvam, quæ unciam fortasse unam capere posset. In eam spiritus vini (quia ex liquoribus proxime accedebat ad pneumaticum, cum esset levissimus) unciam dimidiam infudimus. Deinde vesicam accepimus admodum grandem, utpote quæ octo pintas vinarias (galonium scilicet, at nostrates appellant) capere posset. Vesica autem erat non vetus; et propterea non sicca et renitens, sed recens et mollis. Ex illa vesica aërem omnem, quoad fieri potuit, expressimus; ut latera ejus essent quasi contigua et cohærentia. Vesicam insuper per exterius oleo parum oblevimus, et molliter fricavimus: ut porositas vesicæ oleo obturaretur, atque etiam, ut inde fieret magis cedens, et tensibilis. Hanc circa os phialæ (ore scilicet phialæ intra os vesicæ recepto) applicuimus; eamque filo cerato arcte ligavimus. Tum demum phialam supra prunas ardentes in foculo collocavimus. Non ita multo post ascendebat aura spiritus vini in vesicam, eamque paulatim undequaque fortiter admodum inflavit. Quo facto, continuo vitrum ab igne removimus; et in summitate vesicæ foramen acu fecimus, ut aura potius expiraret, quam relabaretur in guttas. Deinde vesicam a phiala sustulimus, et per lances, quantum de illa seminecia spiritus vini diminutum fuisset, et in auram versum, probavimus. Erat autem deperditum non plus (pondere) denariis sex. Adeo ut sex illi denarii in corpore spiritus vini, qui quadragesimam partem pintæ (ut memini) non implebant, in auram versi, spatium octo pintarum adæquarent.

Monitum. Memini etiam vesicam ab igne remotam paulam flaccescere incepisse; ut, non obstante tam insigni expansione, non videretur tamen aura versa fuisse in pneumaticum purum et fixum, cum ad se restitueadam inclinaret. Attamen fallere possit hoc experimentum, si ex eo conjiciamus, aërem communem esse adhuc hujusmodi aura rariorem; quoniam arbitramur spiritum vini in pneumaticum versum (licet minime purum, tamen) propter calorem, superare

raritatem aëris frigidi; cum et ipse aër, per calorem, majorem in modum dilatetur, et exporrectionem aëris frigidi haud paulum superet. Itaque arbitramur, si experimentum fiat in aqua, multo minorem futuram expansionem; licet corpus aquæ plus materiæ contineat quam spiritus vini.

Historia. Si advertas fumum ex cereo recenter extincto exeuntem, et oculis metiaris crassitudinem ejus, et rursus intuearis corpus ipsius fumi postea inflammati; videbis expansionem flammæ, collatæ ad fumum, ampliatam quasi ad duplam.

Monitum. Si accipias pauca grana pulveris pyrii, eaque inflammes, magna prorsus fit expansio respectu corporis pulveris. Sed rursus, extincta illa flamma, multo amplius adhuc se extendit corpus fumi. Id vero non te fallat, ac si corpus tangibile plus expanderetur in fumo, quam in flamma; nam id secus se habet. Sed ratio apparentiæ est, quod corpus flammæ sit corpus integrum, corpus fumi corpus commixtum, ex longe majore parte, cum aëre: itaque, sicut parum croci multum aquæ colorat; similiter parum fumi in multum aërem se spargit. Nam fumus spissus (ut antea dictum est) non sparsus, minor cernitur corpore flammæ.

Historia. Si accipias frustulum corticis aurantii exterioris (qui aromaticus est, et oleosus) ipsumque subito comprimas juxta lychnum, exilit aliquid roris in guttulis; quod tamen constituit corpus flammæ (respectu guttularum) insigniter amplum.

Observatio. Commentum illud Peripateticorum, de decupla proportione elementorum ad invicem in raritate, res fictitia est, et ad placitum; cum certum sit, aërem centuplo (ad minimum) rariorem esse aqua, flammamque oleo; at flammam ipsum aërem decupla minime superare.

Monitum. Non est, cur ista inquisitio et commentatio circa pneumatica videatur cuipiam nimis subtilis aut curiosa. Certum enim est, omissionem et inobservantiam circa illa obstupefecisse philosophiam et medicinam, easque tanquam siderasse, ut fuerint ad veram causarum investigationem attonitæ, et quasi inutiles, qualitatibus tribuendo, quæ spiritibus debentur: ut in titulo proprio de pneumatico ipso fusius apparebit.

Connexio. Atque de exporrectione materiæ in corporibus secundum consistentias suas diversas, dum quiescunt, hæc inquisita sint. De appetitu autem et motu corporum, unde tumescunt, residunt, rarefiunt, condensantur, dilatantur, contrahuntur, majorem, minorem locum occupant, accuratius, si fieri possit, inquirendum; quia fructuosior est inquisitio, naturam simul et revelans, et regens. Attamen carptim facienda est inquisitio ista, et cursim. Iste enim titulus, de denso et raro, tam generalis est, ut si plenarie deductus foret, multa ex sequentibus titulis anticipaturus esset, quod fieri non oportet.

Monitum. Non difficile nobis foret historiam, quam jam subjungemus, sparsam in ordinem meliorem (quam qua usi sumus) redigere, instantias, quæ inter se affines sunt, simul collocando. Id consulto evitavimus, duplici ratione moti. Primo, quod multæ ex instantiis ancipitis naturæ sint, et ad plura spectent. Itaque ordo accuratus in ejusmodi rebus aut iterat, aut fallit. Deinde (id quod præcipue in causa fuit, cur a methodo aliqua exacta abhorreremus) hoc quod agimus, omnium industriæ ad imitationem patere volumus. Quod si methodo aliqua artificiali et illustri collectio ista instantiarum connexa fuisset, desperassent procul dubio complures se ejusmodi inquisitionem facere potuisse. Quare et exemplo et monito cavemus, ut quisque in instantiis comparandis et proponendis suo judicio, suæ memoriæ, suæ copiæ inservist. Satis sit si de scripto, et non memoriter, (id enim in tantis instantiarum fluctibus iudicium quiddam esset,) semper procedat inventio; ut veræ inductionis lumine postea absolvi possit. Atque illud perpetuo memoria tenendum, nos in hoc opere stipem tantummodo et tributum a sensu ad ærarium scientiarum exigere; neque exempla, ad illustranda axiomata, sed experimenta ad ea constituenda, proponere. Neque tamen dispositionem instantiarum prorsus negligemus, neque discincti hoc aggrediemur; sed ita instantias collocabimus, ut sibi invicem lucem præbeant nonnullam.

DILATATIONES PER INTERCEPTIONEM SIMPLICEM, SIVE ADMISSIONEM CORPORIS NOVI.

Historia sparsa. 1. Ex introceptione corporis alieni nil mirum si sequatur dilatatio corporis alicujus; quandoquidem hoc sit plane augmentum sive additio, non rarefactio vera. Attamen cum corpus, quod introcipitur, fuerit pneumaticum, (veluti aër, aut spiritus,) aut etiam cum corpus introceptum (licet fuerit tangibile, tamen) sensim illabatur, et se insinuet; vulgo habetur magis pro tumore quodam, quam accessione.

2. Vesica, aut alia tensilia (ut folles) inflantur aëre integro, atque extenduntur; adeo ut indurentur, et ictum, jactum, pati possint: etiam bulla aquæ est instar vesicæ, nisi quod est tam fragilis.

3. Liquores de vase in vas de alto fusi, aut cochlearibus et spatulis, aut ventis, fortiter agitati, committuntur et commiscentur cum aëre, unde se attollunt in spumam. Illi paulo post residunt, et minorem locum occupant, aëre (fractis spumæ bullulis) exeunte.

4. Extruunt pueri ex aqua saponi admista (unde fit paulo tenacior) turres bullatas; adeo ut (parum admodum aquæ aëre introcepto) magnum locum occupet.

5. At non invenitur quod flamma, per inflationem follium, aut agitationem aliam exteriorem, cum aëre misceatur, et spumescat in eum modum, ut possit constitui corpus commixtum ex flamma et aëre, instar spumæ, quæ commixta est ex aëre et liquore.

6. At contra, certum est, per mistionem interiorem in corpore antequam inflammetur, fieri posse corpus commixtum ex aëre et flamma. Nam pulvis pyrius habet partes non inflammabiles ex nitro, alias inflammabiles, præcipue ex sulphure; unde etiam magis albicat et pallescit, quam cæteræ flammæ (licet flamma ipsa sulphuris vergat ad cæruleum): adeo

ut possit illa flamma recte comparari spumæ potentissimæ, e flamma et aëre coagmentatæ, sive vento euidam igneo.

7. Quemadmodum autem spuma est corpus compositum ex aëre et liquore; ita etiam pulveres omnes sunt compositi ex aëre et minutiis corporis pulverizati; ut non aliter different a spumis, quam contiguum differt a continuo: nam magna moles ipsorum consistit ex aëre, qui partes corporis sublevat; ut ex tabula secunda et tertia liquet.

8. Fiunt tumores in ventre animalium, et aliis partibus, ex flatu, et humore aqueo introcepto, et admisso; ut in hydrope, tympanite, et similibus.

9. Est genus columbarum, quod, capite intra collum recepto, inflatur et tumet.

10. Respiratio per pulmones (follium instar) aërem attrahit et reddit; dilatante se, per vices, pulmone, et residente.

11. Fœmellæ prægnantes tument mammillas, lacteo scilicet humore turgentes.

12. Glans virgæ in masculis, cum arrigitur in venerem, multum dilatatur mole.

13. Inspice in speculum, et nota latitudinem utriusque oculi pupillæ; dein claude alterum oculum; et videbis pupillam oculi aperti manifeste dilatatam, spiritibus qui utrique oculo inserviebant in unum confluentibus.

14. Rimæ globorum lusoriorum, et similiter lignorum aliorum, a siccitate contractæ, per immissionem, et moram nonnullam in aqua, et imbibitionem ipsius aquæ, implentur et consolidantur.

15. Est genus quoddam fungi, qui excrescit ex arbore, quem vocant aurieulam Judæi, qui immissus in aquam magnopere intumescit: quod non facit spongia, aut lana.

Connexio. Atque de introceptionibus corporis alieni (quæ sunt pseudo-rarefactiones) hæc inquisita sint. Transeundum ad dilatationes et tumores, quæ fiunt in corporibus, ex spiritu innato (sive illi sunt naturales, ut loquuntur, sive præternaturales) absque igne, aut calore manifesto externo: licet in his quoque sequatur quandoque accessio sive introceptio humoris, præter ipsam dilatationem simplicem.

DILATATIONES PER SPIRITUM INNATUM SE EXPANDENTEM.

1. Mustum, aut cervisia nova, et similia, in doliis reposita, intumescunt, et insurgunt admodum; adeo ut, nisi detur spiraculum, dolia infringant; sin detur, se attollant, et exundent cum spuma, et quasi ebulliant.

2. Liquores spirituosi arctius conclusi (ut in utribus fortiter obturatis) magno impetu sæpe erumpunt, et opercula sua quandoque ejiciunt, tanquam e tormento.

3. Audivi mustum nuper calcatum, et quasi fervens, in vitro crasso et forti repositum, (ore vitri bene lutato et clauso, ut mustum nec erumpere nec perfringere posset,) non reperiente exitum spiritu, se per continuas circulationes et vexationes vertisse plane in tartarum; ut nihil restaret in vitro, præter auram et fæces: verum de hoc mihi parum constat.

4. Semina plantarum, ut pisorum, fabarum, et ejusmodi, turgescunt nonnihil, antequam emittant radicem aut caulem.

5. Arbores quandoque, spiritu et succo nativo tumescentes, corticem rumpunt, et emittunt gummi et lacrymas.

6. Etiam gemmæ complures videntur esse eruptiones sueeorum puriorum ex rupibus; eum tam gummi quam gemmæ rupium deprehendantur (ex splendore) esse succi percolati et depurati; adeo ut etiam saxa et lapides videantur ex spiritu innato tumescere.

7. Neque dubium est, quin in spermate animalium primus actus ad vivificandum sit quædam expansio massæ.

8. Vitriolum erumpendo tanquam germinat, et fere arboreseit.

9. Lapides tempore et senio (præsertim in locis humidioribus) emittunt salem, qui est e natura nitri.

10. Omnis gleba terræ tumet nitro: itaque si terra quævis sit cooperta et accumulata, ita ut succus ejus non exhauriatur per solem et aërem, nec se consumat in emittendo vegetabili; colligit nitrum, ut internum tumorem. Ideo in aliquibus Europæ partibus struunt mineras artificiales nitri, accumulata terra, in domibus ad hoc paratis, prohibito aditu solis.

11. Sudores in animalibus, per motum dilatatis spiritibus, atque humoribus veluti liquefactis, proveniunt.

12. Pulsus cordis et arteriarum in animalibus fit per irrequietam dilatationem spirituum, et receptum ipsorum, per vices.

13. Quin et motus voluntarius in animalibus, qui expeditur (in perfectioribus) per nervos, videtur radicem habere in compressione primum, deinde relaxatione spirituum.

14. In omni contusione membri alicujus in animalibus, sequitur tumor: idem evenit in plerisque doloribus.

15. Aculei vesparum et apum majorem inducunt tumorem, quam pro inflictu: id multo magis faciunt punctiones serpentum.

16. Etiam urtica, bryonia, et alia nonnulla, levant cutem, et vesicas in illa causant.

17. Habetur pro evidenti signo veneni, (præsertim ejus generis quod operatur ex qualitate maligna; non per erosionem,) si facies aut corpus intumescat.

18. In vesicationibus colli aut alterius alicujus partis, quæ adhibentur ad curationes morborum, assurgit humor aqueus, sive ichor, qui postea, cute scissa aut puncta, effluit.

19. Omnes pustulæ ex causa interna, et hujusmodi efflorescentiæ et apostemata, inducunt tumores apparentes, et sublevant cutem.

20. Iracundia subito effervescens (in nonnullis, inflat buccas: similiter et fastus.

21. Ranæ et bufones tument; et complura animalia per ferociam erigunt cristas, et pilos, et plumas: quod fit ex contractione cutis per tumorem spirituum.

22. Galli, quos Indicos, alii Turcicos vocant, irati, magnopere tument, et pennas tanquam jubas erigunt. Aves eum dormitant, dilatato spiritu, per receptum caloris ad interiora, nonnihil tument.

23. In omni carie et putredine tumescere incipi-

unt spiritus corporis innati; cumque ad exitum properant, solvunt et alterant rei compagem; et, si compages rei sit paulo tenacior et viscosior, ut exire non possint, novas formas moliuntur; ut in vermibus e putredine natis; sed exordium actionis est a dilatatione spirituum.

24. Neque spiritus in putredine cohibitus tantum molitur animalcula, verum et rudimenta plantarum: ut conspicitur in musco, et hirsutie arborum nonnullarum. Memini me expertum esse, casu quodam, non de industria, quod cum æstivo tempore malum citrium, ex parte sectum, in conclavi reliquissem, post duos menses inveni in parte secta putredinem quandam germinantem; adeo ut in capillis quibusdam exurgeret ad altitudinem pollicis, ad minus, atque in summitate capillorum singulorum ascivisset caput quoddam, instar capitis pusilli clavi; plane incipiens imitari plantam.

25. Similiter, rubigines fiunt in metallis, et vitro et similibus, ex dilatatione spiritus innati, qui tumescit, et urget partes crassiores, easque ante se agit, et extrudit, ut exeat.

26. Utrum terra in superficie tumescat, præsertim ubi glebæ sunt spongiosæ et cavæ, inquirendum. Certe inveniuntur quandoque in ejusmodi glebis arbores instar malorum navium, quæ sub terra nonnullos pedes in altum jacent demersæ et sepultæ: ut verisimile sit arbores illas per tempestates fuisse olim dejectas; postea vero, attollente se paulatim terra, coopertas fuisse et sepultas.

27. At subito et manifeste intumescit terra in terræ motibus, unde sæpenumero erumpunt scaturigines aquarum, vortices et globi flammarum, venti vehementes et peregrini, atque ejiciuntur saxa, cineres.

28. Neque tamen terræ motus omnes prorsus subito fiunt; nam evenit nonnunquam, ut terra contremuerit per plures dies: et nostro tempore apud nos in agro Herfordiensi fuit terræ motus, admodum pusillus et lentus, sed rarus; in quo aliqua jugera terræ per diem integrum paulatim se moverunt, et in alium locum paulo decliviorem, nec multo distantem, se transtulerunt, et ita quieverunt.

29. Utrum moles aquarum in maribus aliquando tumescant inquirendum. Nam in ipsis fluxibus maris, necesse est ut illi fiant vel ex motu progressivo, vel ex sublatione aquarum in sursum per virtutem et consensum aliquem magneticum, vel denique per tumorem sive relaxationem aliquam in ipsis aquis. Atque postremus iste modus (si modo talis aliquis sit inter causas fluxus alicujus) pertinet ad inquisitionem præsentem.

30. Aqua in fontibus et puteis nonnullis tumescit et residit; adeo ut æstus quosdam videatur pati.

31. Etiam erumpunt quandoque in quibusdam locis scaturigines aquarum, absque aliquo terræ motu, intra aliquos annos, ex causis incertis. Fitque ista eruptio plerumque in magnis siccitatibus.

32. Etiam notatum est, intumescere quandoque maria absque fluxu aut vento aliquo exteriore; idque fere tempestatem aliquam magnam præcedere.

Mandata. Non foret indignum experimento, ut probetur, utrum fiat interdum aliqua relaxatio in corpore aquæ, etiam in minore quanto. Atqui si exponatur aqua soli vel aëri, fiet potius consumptio: itaque experimentum faciendum, in vitro clauso. Accipe itaque vitrum, quod habeat ventrem amplum, collum vero longum et angustum, atque infundatur aqua, donec venter et pars inferior colli impleatur. Fiat autem hoc per tempestatem aëris borealem et siccam; atque ita permittatur, donec succedat tempestas australis et pluviosa; et vide, si aqua insurgat aliqualiter in collo vitri. Etiam de tumoribus aquæ in puteis facienda est diligentior inquisitio; utrum fiant magis noctu quam interdiu, et quali tempestate anni.

33. In pannis fidium ligneis fit tempore pluvioso, ut illæ tumescentes difficilius torqueantur. Similiter pyxides ligneæ difficilius extrahuntur ex theeis suis, et ostia lignea difficilius aperiuntur.

34. Chordæ fidium extentæ paulo rigidius temporibus pluviosis rumpuntur.

35. Humores in corporibus animalium, tempestatibus australibus et pluviosis, deprehenduntur laxari et tumescere, et fluere, et incumbere magis, et meatus obstruere.

36. Recepta est opinio, humores et succos, non in animalibus tantum, sed et in plantis, sub plenilunii magis turgescere, et cava implere.

37. Sales in locis humidis se solvunt, aperiunt, et dilatant: id quod faciunt (aliqua ex parte) saccharum et condita; quæ, nisi reponantur in cameris, ubi aliquando accenditur ignis, situm colligunt.

38. Etiam omnia, quæ per ignem cocta, et majorem in modum contracta sunt, tractu temporis nonnihil laxantur.

39. De tumoribus et relaxationibus aëris diligentius videndum; et quatenus in his militent (magna ex parte) causæ ventorum; cum vapores nec colligantur commode in pluviam, nec dissipantur in aërem limpidum, sed inducunt tumores in corpore aëris.

Connexio. Atque de dilatationibus corporum per spiritum innatum, sive in maturationibus, sive in rudimentis generationum, sive in excitatione per motum, sive in irritationibus naturalibus aut præternaturalibus, sive in putrefactionibus, sive in relaxationibus, hæc pauca ex cumulo naturæ inquisita sunto. Transeundum jam ad aperturas et dilatationes quæ fiunt per ignem et calorem externum actualem.

DILATATIONES ET APERTURÆ CORPORUM, QUÆ FIUNT PER IGNEM ET CALOREM ACTUALEM, SIMPLICEM, EXTERNUM.

Monitum. APERTURÆ corporum per calorem sive ignem (de quibus jam inquiremus) proprie spectant ad titulos de calido et frigido, et de motu hyles, et de separationibus et alterationibus. Attamen carpendum et prægustandum est aliquid ex ipsis in præsenti titulo, cum absque aliqua notitia ipsorum non possit inquiri recte de denso et raro.

Historia. 1. Aër per calorem dilatatur simpliciter. Neque enim separatur quippiam aut emittitur, ut in tangibilibus; sed simpliciter fit expansio.

2. In ventosis, vitro et aëre intra ipsum contento calefactis, et ventosis carni applicatis, quando paulo post aër, qui per calorem dilatatus fuerit, remittente

calore, se recipiat paulatim et contrahat; attrahitur per motum nexus caro. Quod si ventosas fortius attrahere cupias, accipe spongiam frigida madefactam, et pone eam super ventrem ventosæ; ut, per refrigerationem amplius contracto aëre, ventosa fortius attrahat.

3. Accipe vitrum, et calefacias illud: mitte illud post in aquam: attrahet aquam pro minimo ad tertias contenti; unde liquet, aërem a calore rarefactum fuisse pariter ad tertias contenti. Sed hoc parum est. Nam eum vitrum, quo usi sumus, tenue esset, majorem calefactionem, absque periculo rupturæ, non facile patiebatur. Quod si fuisset phiala ferrea aut ænea, et majorem in modum calefacta, arbitror aërem posse dilatari ad duplum aut triplum: quod experimento dignissimum est; etiam ad quousque, ut inde melius de raritate aëris superne, atque adeo ætheris ipsius, judicium facere possimus.

4. In vitro quod appellamus calendare (quod tempestatem, quatenus ad calorem et frigus, tam accurate demonstret varietates et gradus) evidentissime patet, quam parva accessio caloris expandat aërem notabiliter: adeo ut manus vitro superposita, radii aliqui solis, ipse anhelitus astantium operetur: quin et ipsius aëris externi inclinationes ad calorem et frigus (tactui ipsi imperceptibiles) aërem nihilominus in vitro sensim et perpetuo dilatent et contrahant.

5. Here describit altaris fabricam eo artificio, ut, superimposito holocausto et incenso, subito aqua descenderet, quæ ignem extingueret. Id non aliam poscebat industriam, quam ut sub altare esset locus concavus et conclusus, aëre repletus; qui aër ab igne calefactus, et propterea dilatatus, nullum reperiret exitum, nisi in canali ad parietem altaris erecto et curvato, ore super altare inverso. In canali erecto infusa erat aqua (facto etiam ventre in canali, ut largior copia aquæ receiperetur); ea aqua obiee impediebatur, ne deseenderet, foraminato; qui obex postquam erat versus, dabat locum aëri dilatato, ut aquam eveheret et ejiceret.

6. Inventum fuit Fraeastorii ad excitandos apoplecticos, ut poneretur sartago fervens circa caput ad nonnullam distantiam; unde spiritus in cellis cerebri suffocati et congelati, et ab humoribus obsessi, dilatarentur, excitarentur, et vivificarentur.

7. Etiam papiliones, quæ hieme jacent emortuæ, admotæ ad ignem aut radios solis, motum et vitam recipiunt. Ægroti quoque in deliquiis, tam aquis fortibus et calidis intro sumptis, quam calore exteriore, et frieationibus, et motu excitantur.

8. Apertura aquæ talis est. Sub primo calore emittit vaporem paucum et rarum: neque intra corpus alia conspieitur mutatio. Continuato calore, corpore integro non insurgit, nec etiam bullis minutis in modum spumæ; sed per bullas majores et rariores ascendit, et in copiosum vaporem se solvit. Ille vapor, si non impediatur aut reperciatiatur, aëri se immiscet; primo conspicuus, dein insensibilis et se deperdens.

9. Apertura olei talis est. A primo calore ascendunt guttulæ quædam aut granula per corpus olei sparsa; idque cum crepitatione quadam. Interim nec bullæ in superficie ludunt, (ut in aqua,) nec corpus integrum tumet, nec quiequam fere halitus evolat. At post moram nonnullam, tum demum corpus integrum insurgit, et dilatatur expansione notabili, tanquam ad duplum; et copiosissimus et spissus admodum evolat halitus. Is halitus, si flammam intcrea non conceperit, miscet se tandem eum aëre, quemadmodum et vapor aquæ. Majorem autem calorem desiderat, ad hoc ut bulliat, oleum, quam aqua, et tardius multo bullire incipit.

10. Apertura spiritus vini ea est, ut aquam potius referat, quam oleum. Nam ebullit, magnis utique bullis, absque spuma aut totius corporis elevatione; longe autem minore calore, et multo celerius expanditur et evolat, quam aqua. Utriusque vero naturæ partieeps (tam aquæ scilicet, quam oleosæ) et facile se immiscet aëri, et cito conciipit flammam.

11. Acetum et agresta et vinum in hoc differunt in processu suæ aperturæ: quod acetum insurgat in minoribus bullis, et magis circa latera vasis; agresta et vinum in majoribus bullis, et magis in medio vasis.

12. Generaliter in liquidis hoc fit, ut pinguia, sicut oleum, lac, adeps, et hujusmodi, insurgant et tumeant simul toto corpore; succi maturi (et magis adhue immaturi) bullis majoribus; succi effœti et vapidi bullis minoribus.

13. Omnibus liquoribus commune est, etiam oleo ipsi, ut antequam bulliant, pauceas et raras semibullas circa latera vasis jaciant.

14. Omnibus liquoribus commune est, ut in parva quantitate citius aperiantur, bulliant, atque consumantur, quam in magna.

Monitum. Experimentum de aperturis liquorum faciendum est in vasis vitreis, ut motus in eorpore liquorum melius conspici possint; atque super foculos eum calore æquali, ut differentia verius exeipiatur; atque igne lento, quia ignis vehemens præcipitat et confundit actiones.

Historia. 15. Sunt vero complura corpora, quæ non sunt liquida, sed eonsistentia et determinata; attamen per calorem naneiscuntur eam apertnram, ut liquescant sive deveniant liquida, quamdiu calor ea vellicet et expandat; qualia sunt eera, adeps, butyrum, pix, resina, gummi, saccharum, mel; et plurima ex metallis, veluti plumbum, aurum, argentum, æs, cuprum. Ita tamen, ut ad aperturam requirantur non solum gradus caloris longe diversi, sed et modificationes ignis et flammæ dissimiles. Nam alia metalla colliquantur per ignem simpliciter, ut plumbum; alia per ignem motum et follibus excitatum, ut aurum et argentum; alia non sine admistione, ut chalybs, qui non, nisi admisto sulphure aut simili quopiam, colliquatur.

16. At ista omnia, si continuetur ignis et urgeat, non solum sortiuntur aperturam colliquationis, sed pertransennt, et adipiscuntur secundam aperturam, (volatilis scilicet, sive pneumatici, sive consumptionis,) omnia, inquam, præter aurum: nam quatenus ad argentum vivum, eum in natura sua sit liquidum, incipit illud ab apertura secunda, et facile vertitur in volatile. De auro adhue dubium est, utrum possit fieri volatile aut pneumaticum (aut etiam potabile, ut loquuntur) hoc est, non dissolubile quidem, (id enim facile est et tritum per aquas fortes,) sed diges-

tibile aut alterabile per ventriculam humanum. Hujus autem rei legitima videtur probatio; minime illa, ut vi ignis ascendat aut trudatur sursum; sed ut ita attenuetur et subigatur, ut restitai in metallum non possit.

17. Inquiratur etiam ulterius de vitro et vitrificatis, utrum per ignem consumantur et vertantur in pneumaticum. Habetur enim vitrum pro corpore fixo et exsucco; et vitrificatio pro morte metallorum.

18. Quæ colliquantur omnia, in via et processu suo incipiunt ab infimo illo gradu aperturæ, qui est emollitio et iuteneratio, antequam colliquentur et fundantur; ut cera, gummi, metalla colliquabilia, vitrum, et similia.

19. At ferrum et chalybs, postquam fuerint perfecta et repurgata, (nisi fuerit admistio,) quateuus ad ignem simplicem persistunt, et non procedunt ultra illum gradum emollitionis, ut reddantur, scilicet, malleabilia et flexibilia, et exuant fragilitatem suam; minime autem pertingunt ad colliquationem sive fusionem.

20. Videntur ferrum et vitrum, cum aperiuntur ad illam mollitiem de qua diximus, dilatari sane in spiritu suo inclnso; unde fit illa subactio partium taugibilium, ut duritiem et obstinationem suam deponant; neque tamen corpus ipsum integrum localiter dilatari aut intumescere cernitur. Attamen attentius paulo inquirenti deprehenditur plane in ipsis invisibilis quidam tumor et partium pulsatio; licet cohibeatur ab arcta compage sua. Nam si accipias vitrum ignitum, et majorem in modum calefactum, et ponas illud supra tabulam lapideam, aut simile aliquod corpus durum, (licet et ipsa tabula illa, seu corpus bene calefactum fuerit, ut frigori causa imputari non possit,) rumpetur prorsus vitrum, duritie lapidis scilicet tumorem illum occultum vitri repercutiente. Itaque solent in hujusmodi casu, quando vitrum fervens summovetur ab igne, substernere ipsi pulverem aliquem, aut arenam mollem, quæ suaviter cedens tumorem in partibus vitri non retundat.

21. Etiam pilæ e bombardis emissæ, postquam non solum vehi, sed et gliscere aut labi omnino desierint, adeo ut ad aspectum sint prorsus immobiles, tamen diu post, magnum deprehenduntur habere tumultum et pulsationem in minimis; adeo ut, si aliquid superponatur, magnam vim patiatur: neque id tam a calore comburente, quam a palpitatione percussiva.

22. Bacula lignea recentia, sub cineribus calidis detenta et versata, induunt mollitudinem, ut melius flectantur ad arbitrium. Experire quid fiat in baculis antiquioribus et in cannis.

23. Apertura combustibilium ea est, ut per ignem primo emittant fumum, dein concipiant flammam, postremo deponant cinerem.

24. In corporibus quæ continent humorem aqueum, et a flamma abhorrentem, in compage clausa et compacta, (qualia sunt folia lauri, et alia non porosa, sales, et similia,) ea est apertura per ignem, ut spiritus in iis contentus (aqueus et crudus) per calorem dilatatus, cum sonitu emittatur antequam flamma concipiatur: si vero in aliquo corpore (quod raro fit) insimul fiant et eruptio flatus et conceptio flammæ, ingens tumultus excitatur, et potentissima dilatatio; flatu, tanquam internis follibus, flammam undiquaque exsufflante et expandente, ut in pulvere pyrio.

25. Panis in furno nonnihil tumescit, licet fiat minoris ponderis, quam ante: etiam in summo panis quandoque colligitur, tanquam bulla aut vesica crustæ; ut cavum quiddam aëre impletum maneat inter pelliculam illam crustæ (quæ exscindi solet) et massam panis.

26. Etiam carnes assatæ nonnihil tument, præsertim si maneat epidermis, ut in porcellis.

27. At fructus assati quandoque exilinnt, ut castaneæ; quandoque effringunt corticem, et emittunt pulpam, ut poma; quod si ab igne magis torrefiant, asciscunt crustam carbonariam, ut cavum sit quiddam (ut in pane) inter crustam et carnem fructus; quod et fit in ovis.

28. Si vero calor sit lenis et cæcus, nec detur spiraculum facile ad emittendum vaporem, ut fit in pyris sub cinere assatis, et multo magis in iis quæ reponuntur in ollis, atque deinde sub cinere sepeliuntur, atque similiter in carnibus suffocatis, vel intra crustas panis, vel inter patinas; tum tumor ille et dilatatio per calorem repellitur et in se vertitur, atque tanquam in distillatione restituitur, et reddit corpora magis humectata, et tanquam mersa in succis suis.

29. At in aridis, si flamma fuerit suffocata, nec facilem reperiat exitum; rarefiunt corpora, et redduntur cava et porosa, ut in carbonibus e ligno, et pumicibus, quæ ejiciuntur ex montibus flammantibus.

Connexio. Transeundum jam esset ad dilatationes et aperturas corporum, quæ fiunt per calorem in distillationibus; in quibus magis accurate datur cernere hujusmodi aperturas, quam in coctionibus et ustionibus. Verum cum in illis immorari haud parum oporteat, cumque proprie pertineat inquisitio ipsarum ad titulos de calido et frigido, et de motu hyles, et de separationibus; exiguum quiddam est quod proponi debet in hoc titulo.

DILATATIONES PER CALOREM EXTERNUM IN DISTILLATIONIBUS.

1. Duplex est dilatatio, sive apertura, sive attenuatio corporum in distillationibus. Altera in transitu, cum corpus vertitur in vaporem aut fumum (qui postea restituitur); altera in corpore restituto, quod semper tenuius est, et magis subtile et expansum, et minus materiatum, quam corpus crudum, ex quo distillatum emanavit. Aqua enim rosacea (exempli gratia) est succo rosarum tenuius et minus ponderosum.

2. Distillationes omnes fiunt ex æstu quodam sive reciprocatione rarefactionis primo, et versionis in pneumaticum; dein condensationis et restitutionis in corpus taugibile, remittente se calore et vapore repercusso.

3. In distillationibus actiones dilatationis et condensationis non sunt sinceræ; sed intervenit actio illa (quæ maxime est intentionalis in practica) separationis partium heterogenearum; ut succi veri, phlegmatis, aquæ, olei, partis tenuioris, partis crassioris.

4. In distillationibus optime inquiritur et decernitur de gradibus et diversitatibus calorum; ut carbonum, furni calefacti, balnei, cinerum, arenæ calidæ, fimi, solis, ignis quiescentis, ignis follibus excitati, ignis conclusi et reverberati, caloris ascendentis, caloris descendentis, et hujusmodi: quæ omnia ad aperturas corporum, et præcipue ad complicatas actiones dilatandi et contrahendi (de quibus postea dicemus) insigniter faciunt. Neque tamen ullo modo videntur calores illi imitatores calores solis et cœlestium; cum nec satis lenes sint et temperati, nec satis lenti et continuati, nec satis refracti et modificati per corpora media, nec satis inæqualiter accedentes et recedentes. De quibus omnibus, sub titulo calidi et frigidi, et titulis aliis ad hoc propriis, diligenter inquiremus.

5. Distillationes, et dilatationes per eas, fiunt in clauso, ubi concludunter simul corpus distillandum, et vapores qui ex eo immittuntur, et aër. Neque tamen instillatoriis et alembicis communibus diligenter arcetur aër exterior; quin per rostrum stillatorii, per quod liquor effluit, ille subintrare aliquatenus possit. At in retortis, ubi majore vehementia caloris opus est, non datur aëri exteriori ingressus, sed os receptaculi ori vasis (ubi corpus imponitur) per lutationes ita continuatur, ut universus processus rarefactionis et restitutionis intus transigatur. Quod si corpus sit plenum spiritu vigoroso, (ut vitriolum,) opus est receptaculo vasto et amplo, ut vapores liberius ludant, nec vas infrangant.

Mandata. 1. Utcunque tamen distillationes tanquam intra cellam undiquaque clausam transigantur; datur tamen spatium, ut corporis aliæ partes se expandere in vapores, aliæ subsidere in fæcibus, vapores rursus se glomerare et restituere, atque (si heterogenei fuerint) alii ab aliis se separare possint. Quod sequitur igitur pro mandato magno habendum, cum ad naturam in imis concutiendam, et ad novas tranformationes aditum præbere possit. Vulcanus enim chemicorum et medicorum (licet multa utilia genuerit, tamen) virtutes veriores caloris fortassis minus complexus est, ob divortia et separationes partium, quæ in operationibus ipsorum semper interveniunt. Itaque summa rei quam mandamus huc spectat; ut illa separatio et reciprocatio rarefactionis et condensationis omnino prohibeatur, atque opus caloris intra corpus ipsum atque ejus claustra vertatur: hoc enim fortasse Proteum materiæ per manicas constructum tenebit, et se versiones suas experiri et expedire compellet. De hoc complura nobis in mentem veniunt, et alia reperiri possunt. Proponemus exemplum unum aut alterum ex facillimis, ad hoc tantum, ut percipi possit quid velimus.

2. Accipe vas quadratum ferri, in figura cubi, habeatque latera bene fortia et crassa. Impone cubum ligni ad mensuram vasis ad amussim factum, quique illud prorsus impleat. Superponatur operculum ferri non minus forte quam latera vasis; et lutetur optime, more chemicorum, ita ut sit clausissimum, et ignem tolerare possit. Deinde ponatur vas intra prunas, atque ita permittatur ad horas aliquas. Post amoveatur operculum; et vide quid factum sit de ligno. Nobis quidem videtur (cum prohibita plane fuerint inflammatio et fumus, quo minus pneumaticum et humidum ligni emitti potuerint,) alterum ex his eventurum; vel ut corpus ligni vertatur in quoddam amalgama; vel ut solvatur in aërem sive pneumaticum purum, simul cum fæcibus (magis crassis quam sunt cineres) in fundo, et incrustatione nonnulla in lateribus vasis.

3. In simili vase ferreo fiat experimentum de aqua pura; qua repleatur ad summum. Sed adhibeatur ignis lenior: mora vero sit amplior. Quin etiam amoveatur ab igne certis horis, et refrigescat; dein iteretur operatio aliquoties. Hoc experimentum de aqua pura delegimus hanc ob causam; quod aqua corpus simplicissimum sit, expers coloris, odoris, saporis, et aliarum qualitatum. Quamobrem si per calorem temperatum et lenem, et alternationem calefactionis et refrigerationis, et prohibitionem omnis evaporationis, spiritus aquæ non emissus, et nihilominus per hujusmodi calorem solicitatus et attenuatus, se verterit in partes aquæ crassiores, easque ita digerere, et in novum schematismum mutare possit (minus scilicet simplicem et magis inæqualem) eo usque, ut vel colorem alium nanciscatur, vel odorem, vel saporem, vel oleositatem quandam, vel aliam alterationem notabilem, (qualis inveniur in corporibus compositis,) proculdubio res magna confecta foret, et ad plurima aditum patefaciens.

4. Circa distillationem clausam (ita enim eam appellare licet, ubi non datur spatium ad evaporationem) quivis multa alia poterit comminisci. Pro certo enim habemus, calorem analogum, operantem in corpus absque separatione aut consumptione partium, mirabiles metaschematismos effingere et producere posse.

5. Attamen illud addi possit, ut mandati hujus appendix; ut excogitetur etiam aliquis modus (quod certe difficile non est) per quem calor operetur non solum in clauso, sed in tensili; id quod fit in omni matrice naturali, sive vegetabilium sive animalium. Hoc enim operationem ad multa extendit, quæ per clausuram simplicem effici non possunt. Neque hoc pertinet ad pygmæum Paracelsi, aut hujusmodi prodigiosas ineptias; sed ad solida et sana. Exempli gratia; non efficiet unquam distillatio clausa, ut aqua tota vertatur in oleum; quia oleum et pinguia majus occupant dimensum quam aqua. At si operatio fiat in tensili, hoc fortasse fieri possit: quæ esset res immensæ utilitatis, cum omnis alimentatio maxime consistat in pingui.

6. Bonum esset, et ad multa utile, ut in distillationibus natura ad rationes reddendas quandoque compelleretur; atque ut poneretur in certo quantum per distillationem consumptum fuerit, id est, versum in pneumaticum, et quid maneret, sive fixum, sive restitutum in corpore. Id fieri potest, si ante distillationem corpus distillandum ponderes, et vasa ipsa, intra quæ distillatio perficitur. At post distillationem ponderabis liquorem; ponderabis item fæces; denique ponderabis iterum vasa. Ex istis enim tribus ponderationibus cognosces quantum fuerit restitutum, quantum manserit in fæcibus, quantum adhæserit vasibus; atque a decessione ponderis in illis tribus, comparati ad pondus corporis integri, cognosces quantum versum fuerit in pneumaticum.

Connexio. Transeundum a dilatationibus et rarefactionibus, quæ fiunt per calorem actualem, ad dilatationes et relaxationes quæ fiunt per remissionem frigoris vehementis et intensi; quæ ipsa remissio censeri debet pro calore comparato.

DILATATIONES ET RELAXATIONES CORPORUM PER REMISSIONEM FRIGORIS.

Historia. 1. Quæ per frigus vehemens concreverunt, neque tamen eo usque, ut per moram frigoris in densatione sua fixa sint, ea absque calore manifesto, et per remissionem tantum frigoris, se aperiunt et restituunt; ut fit in glacie, grandine, nive: sed hoc faciunt per calorem manifestum admodum multo celerius.

2. Verum delicatiora, quorum vigor consistit in spiritu nativo subtili, ut poma, pyra, granata, et similia, si semel fuerint congelata, suffocato spiritu, non recipiunt postea pristinum vigorem.

3. At vinum et cervisia per gelu ad gustum languescunt, nec vigent; attamen, succedentibus regelationibus et tempestatibus australibus, reviviscunt et relaxantur, et quasi denuo ferveseunt.

Connexio. Transeundum a dilatationibus quæ fiunt per calorem externum actualem, atque etiam per remissionem frigoris, (quæ, ut jam diximus, est calor comparatus,) ad dilatationes corporum quæ fiunt per calores potentiales, sive spiritus auxiliares alterius corporis applicati et admoti.

DILATATIONES CORPORUM, QUÆ FIUNT PER CALOREM POTENTIALEM, SIVE PER SPIRITUS AUXILIARES ALTERIUS CORPORIS.

De caloribus potentialibus consule tabulas medicinales qualitatum secundarum; et ex his poteris excerpere ea quæ operantur super corpus humanum per dilatationem: quæ sunt fere illa quæ sequuntur.

Confortantia, quæ dilatant spiritus oppressos.
Abstergentia, quæ roborant virtutem expulsivam.
Aperientia quoad orificia venarum et vasorum.
Aperientia quoad poros et meatus partium.
Digerentia cum maturatione.
Digerentia cum discussione.
Caustica.

Hæc præcipue (sunt et alia) habent radicem in dilatatione spirituum, et humorum, et succorum, et substantiæ in corpore per spiritus auxiliares; necnon per complexionem tangibilem, quæ inest medicinis illis, vel interius vel exterius sumptis.

Commentatio. Patet in vitro calendari, quam exquisito sensu sive perceptione præditus sit aër communis calidi et frigidi; utpote quæ tam subtiles ejus differentias et gradus statim dijudicare possit. Nec dubito, quin perceptio spiritus in animalibus vivis versus calorem et frigus sit adhuc longe acutior: nisi quod aër sit pneumaticum purum et sincerum, et nihil habeat tangibilis admisti; at spirituum perceptio retundatur et hebetetur corpore tangibili, in quo sunt devincti. Attamen, non obstante hoc impedimento, videntur adhuc spiritus vivorum potiores ipso aëre, quoad hanc perceptionem. Neque enim hactenus nobis constat, quod calor potentialis (de quo jam loquimur) aërem possit dilatare; cum certum sit, quod hoc faciat super spiritus in animalium membris contentos; ut in qualitatibus (quas diximus) secundis medicinarum liquet. Sed de hoc inquiratur paulo accuratius, ex mandato proxime sequente.

Mandata. 1. Accipe duo vitra calendaria ejusdem magnitudinis. Impone in altero aquam, in altero spiritum vini, fortem et acrem; atque ita calefiant vitra, ut aqua et spiritus vini ad parem altitudinem ascendant. Colloca ea simul, et dimitte per spatium aliquod; et nota, si aqua deveniat altior quam spiritus vini. Nam si hoc fit, palam est, calorem spiritus vini potentialem aërem dilatasse, ita ut spiritum vini depresserit.

2. Possit esse res varii usus, si operationes secundarum qualitatum medicinalium probentur interdum, et exerceantur in corporibus vitæ expertibus. Licet enim dubium non sit, plerasque earum nullius prorsus effectus fore, quoniam requiritur plane spiritus vivus ad eas actuandas, ob operationis subtilitatem: aliæ tamen proculdubio super nonnulla corpora inanimata operabuntur. Videmus enim quod possit sal in caruibus, aromata in cadaveribus, coagulum in lacte, fermentum in pane, et hujusmodi. Inserviet igitur diligentia medicorum circa qualitates secundas, ad instruendas complures alias operationes, si animum advertas cum judicio; id semper supponens, quod virtus fortior requiritur ad operandum super corpus mortuum, quam vivum.

Connexio. Transeundum ad dilatationes corporum quæ fiunt per liberationem spirituum, refractis nimirum ergastulis partium crassiorum, quæ illos arcte detinuerant, ut se dilatare non possent. In corporibus enim, quæ habent arctam compagem, atque naturæ integralis nexibus fortiter devincta sunt, non exequuntur spiritus opus suum dilatationis, nisi fiat prius solutio continui in partibus crassioribus; vel per liquores fortes erodentes et stimulantes tantum, vel per eosdem cum calore. Atque hoc cernitur in aperturis et dissolutionibus metallorum, de quibus nunc (ut in reliquis) pauca proponemus.

DILATATIONES CORPORUM PER LIBERATIONEM SPIRITUUM SUORUM.

Historia. 1. Accipe pondus auri puri ad denarium unum, in parvas bracteolas redacti, quæ etiam manu lacerari possint.

2. Accipe etiam pondus quatuor den. aquæ regis; et mittantur simul in vitrum. Tum ponatur vitrum super focilum, in quo sit ignis primarum modicus et lenis. Paulo post insurgunt arenulæ quædam, aut grana; quæ deinde, post parvam moram, se diffundunt et incorporantur cum aqua; ut aqua efficiatur, aqua tanquam electrica, splendida, et veluti croco tincta. Dissolutio autem auri per aquam in quantitatibus prædictis fit tantum ad tertias. Neque enim aqua oneratur ulterius; adeo ut, si dissolvere cupis totum pondus illud auri den. unius, opus sit effundere portionem in qua solutio facta est, et superinfundere de novo pondus simile 4 den. aquæ regis, et sic tertio. Ista dissolutio fit leniter et placide

modico igne, absque fumis et sine calefactione vitri alia, quam per ignem.

3. Accipe argenti vivi in corpore pondus ad placitum, duplum aquæ fortis: ponito simul in vitro, neque ea ad ignem omnino admove. Attamen paulo post insurget intra corpus aquæ instar pulveris tenuissimi, et intra spatium horæ, absque igne, absque fumis, absque tumultu, vertetur corpus commixtum in aquam bene claram.

4. Accipe plumbum in lamellis ad pond. den. 1. aquæ fortis ad pond. den. 9. Non fit bona incorporatio, ut in aliis metallis; sed aqua demittit majorem partem plumbi in calce ad fundum vitri, manente aqua perturbata, sed vergente ad diaphanum.

5. Accipe argenti in lamellis, sive bracteolis, pondus den. 1. aquæ fortis pond. den. 4. pone super foculum in vitro, cum igne lento. Insurgit argentum in arenis, aut bullulis, intra corpus aquæ, majoribus paulo quam aurum; deinde incorporatur cum aqua, et vertuntur simul in liquorem tenuem, sed album et quasi lacteum. Sed postquam paulisper resederit liquor et refrixerit, ejaculantur (sive hoc emanet ex metallo, sive ex aqua, sive ex utroque) fragmina glacialia intra corpus aquæ: postquam autem per moram longiorem penitus resederit, clarificat se liquor, et devenit clarus et crystallinus, demissa glacie in fundum. Sustinet aqua onerationem, qualem in auro, et fit dissolutio simili fere calore, nec colligit calorem per motum magis quam aurum.

6. Accipe cuprum in bracteolis ad pondus den. 1. aquæ fortis ad pondus den. 6. Mitte super foculum. Insurget cuprum in bullulis sive arenulis majoribus adhuc quam argentum. Paulo post incorporatur cum aqua, et corpus commixtum vertitur in liquorem cœruleum, turbidum; sed postquam resederit, clarificat se ætheris instar in cœruleum, pulchrum, et splendidum, demissis in fundum fæcibus instar pulveris, quæ tamen ipsæ per moram imminuuntur, et ascendunt, et incorporantur. At den. illi sex aquæ fortis solvunt den. totum cupri, ut sustineat se onerari aqua duplo plus quam in auro et argento. Concipit autem dissolutio cupri calorem manifestum per tumultum interiorem, etiam antequam admoveatur ad ignem.

7. Accipe stannum in bracteolis ad pondus den. 1. aquæ fortis ad pond. den. 3. et vertitur totum metallum in corpus simile flori lactis aut coagulo; nec facile se clarificat; et concipit sine igne calorem manifestum.

8. Accipe ferri in laminis pond. den. 1. aquæ fortis pond. den. 9. et sine igne surgit ferrum in magnis bullis, non tantum intra corpus aquæ, sed supra, adeo ut ebulliat extra os vitri, atque insuper emittat copiosum et densum fumum croceum; idque cum maximo tumultu et calore vehementissimo, et qualem manus non sustineat.

Monitum. Dubium non est, quin vires variæ aquarum fortium diversorum generum, et modi ignis sive caloris, qui adhibetur, istas aperturas etiam variare possint.

Mandata. Qualis sit ista dilatatio metallorum per aperturas videndum: utrum sit instar dilatationis auri foliati, quæ est pseudo-rarefactio, (ut mox dicemus,) quia corpus dilatatur potius loco quam substantia, qualis itidem est dilatatio pulverum; an revera corpus ipsum metallorum dilatetur in substantia. Hoc hujusmodi experimento probari potest. Pondera argentum vivum; excipe etiam modulum ejus in situla: pondera similiter aquam fortem, et excipe modulum ejus in altera situla: deinde dissolve et incorpora ea modo supradicto; postea pondera incorporatum, et immitte illud etiam in duas illas situlas, et nota, si pondus et mensura compositi ad pondus et mensuram simplicium juste respondeat. Delegimus autem argentum vivum ad experimentum, quia minor est suspicio alicujus consumptionis, cum fiat dissolutio sine igne.

Videndum (obiter) utrum dissolutio argenti vivi lapides ponderosissimos, aut fortasse stannum, sustineat ut innatent. Etenim ex rationibus ponderum hoc colligi potest. Neque hoc pertinet ad miraculum et imposturam, sed ad investigandam naturam misturarum, ut suo titulo apparebit.

Observatio. Notatu etiam dignum est, (licet non sit præsentis inquisitionis,) omnia metalla, licet sint aquis, in quibus dissolvuntur, insigniter graviora, tamen in actu primo dissolutionis ascendere in arenulis vel bullis. Atque eo magis hoc notandum est, quod ubi non admovetur ignis, ut in argento vivo, idem faciant.

Commentatio. Tumultus intra partes corporis inter dissolvendum, istam ascensionem causat. Nam in vehementi erosione corpora impelluntur nonnihil motu locali; ut videre est in lapide parvo glareoso, qui positus in aceto forti ad latera patellæ, (ut facilius labatur,) per vices gliscit, ut pisciculus. Est et genus lapidis aut fossilis, quod immissum in acetum irrequiete se agitat, et huc illuc currit. At quæ sine impetu isto miscentur (ut arbitror) nisi quassata, non ascendunt; velut saccharum in fundo aquæ non dulcificat in summo; nec crocus colorat, nisi moveatur et agitetur.

Connexio. Transeundum ad aliud genus dilatationum, quod etiam communi vocabulo dissolutionum (in aliquibus) nuncupatur. Fit autem ubi corpora versus alia corpora amica ruunt in amplexum; et, si datur copia, aperiunt se ut illa introcipiant. Neque fit hæc apertura tumultuose aut per penetrationem corporis ingredientis, (ut in aquis fortibus,) sed placide, et per relaxationem corporis recipientis.

DILATATIONES PER AMPLEXUM ET OCCURSUM CORPORIS AMICI.

Historia. 1. Saccharum et gummi nonnulla, ut tragacanthum, in liquoribus infusa, solvuntur; laxant enim libenter (instar spongiarum) partes suas ad recipiendum liquorem.

2. Papyrus, seta, lana, et hujusmodi porosa, liquoribus immersa, aut alias humectata, ita se aperiunt, ut deveniant magis mollia, lacerabilia, et quasi putria.

3. Gaudia subita, ut ob nuntium bonum, aspectum ejus quod fuit in desiderio, et similia, licet non corpus amplectantur, sed phantasiam aliquam, nihilominus spiritus animalium insigniter dilatant; idque interdum cum periculo repentini deliquii aut mortis. Simile facit imaginatio in venereis.

Mandatum. Cogitandum de inveniendis menstruis substantiarum specialium: videntur enim posse esse liquores et pulpæ, tantæ cum corporibus determinatis sympathiæ, ut, illis admotis, partes suas facile laxent, easque libenter imbibant; seque per hoc in succis suis intenerent et renovent. Hoc enim pertinet ad unum ex magnalibus naturæ; nempe, ut rerum humores maxime radicales refocillari, et nutritio ab extra fieri possint, ut in corpibus, ossibus, membranis, lignis, etc. Etiam in iis, quæ operantur per divulsionem et penetrationem, est sympathia sive conformitas: aqua fortis siquidem non solvit aurum, ut nec aqua regia communis argentum.

Connexio. Transeundum ad dilatationes per assimilationem aut versionem; quando scilicet corpus imperans et magis activum subigit corpus accommodum et obsequiosum, et magis passivum; ita ut illud in se plane vertat, seque ex eo multiplicet et renovet. Quod si corpus assimilans sit tenuius et rarius quam corpus assimilatum, manifestum est assimilationem fieri non posse absque dilatatione.

DILATATIONES, QUÆ FIUNT PER ASSIMILATIONEM, SIVE VERSIONEM IN TENUIUS.

Historia. 1. Aer, et maxime cum commotus est, (ut in ventis,) lambit humiditatem terræ, eamque deprædatur et in se vertit.

2. Processus desiccationis in lignis, herbis, et hujusmodi tangibilibus, non admodum duris aut obstinatis, fit per deprædationem aëris, qui spiritum in corpore evocat et exsugit, et in se transubstantiat: itaque tarde hoc fit in oleosis et pinguibus, quia spiritus et humidum ipsorum non sunt tam consubstantialia aëri.

3. Spiritus in tangibilibus (qualia diximus) deprædantur partes ipsas crassiores corporis in quo includuntur. Nam spiritus, qui proximi sunt aëri, ipsi aëri obediunt, et exeunt cito: at qui in magis profundo corporis siti sunt, illi partes interiores ad jacentes deprædantur, et novum inde spiritum gignunt et secum copulant, ut nna tandem exeant: unde fit in istis corporibus per ætatem et moram diminutio ponderis; quod fieri non posset, nisi pars aliqua non pneumatica in pnenmaticum sensim verteretur. Nam spiritus jam factus in corpore non ponderat, sed levat pondus potius.

4. Multi tumores in corporibus animalium discutiuntur absque snppuratione aut sanie, per insensilem transpirationem, versi plane in pneumaticum, et evolantes.

5. Esculenta flatuosa gignunt ventositates, succis suis versis in flatum, et exeunt per ructus et crepitus; etiam partes internas extendunt et torquent: quod faciunt etiam alimenta proba et laudata quandoque ob debilitatem functionum.

6. In omni alimentato, eum pars alimentata tenuior est alimento, (ut spiritus atque sanguis per arterias in animalibus leviores sunt, quam cibus et potus,) necesse est ut alimentatio inducat dilatationem.

7. Omnium aperturarum, dilatationum, et expansionum maxima, quatenus ad analogiam inter corpus ante dilatationem et post, omniumque pernicissima, et quæ minima mora et brevissimo actu transigitur, est dilatatio oleosorum et inflammabilium in flammam; quod fit quasi affatim et sine gradibus. Estque (quoad flammam successivam) plane ex genere assimilationum; multiplicante se flamma super fomitem suum.

8. At quod potentissimum in hoc genere est, non ad velocitatem primæ inflammationis, (nam pulvis pyrius non tam cito inflammatur, quam sulphur, aut caphura, aut naphtha,) sed ad successionem flammæ semel conceptæ, et ad superandum ea quæ resistunt, est commistio illa expansionum in aërem simul et in flammam, (de qua supra diximus,) quæ invenitur in pulvere pyrio (ut liquet in bombardis et cuniculis).

9. Notant autem chemistæ, etiam argenti vivi expansionem per ignem esse admodum violentam; quin et aurum, vexatum et occlusum, quandoque potenter erumpere, cum periculo operantium.

Connexio. Transeundum ad eas dilatationes, vel distractiones et divulsiones, quæ fiunt, non ab appetitu aliquo in corpore ipso, quod dilatatur, sed per violentiam corporum externorum, quæ, cum suis motibus prævaleant, necessitatem imponunt corpori alicui, ut dilatetur et distrahatur. Atque ista inquisitio pertinet ad titulum de motu libertatis; sed (ut in reliquis) aliquid de hoc, sed parce et paucis, jam inquiremus. Iste autem motus est plerumque geminus. Primo, motus distractionis a vi externa; deinde motus contractionis vel restitutionis a motu corporis proprio: qui posterior motus licet ad condensationes spectet, tamen ita conjunctus est cum priore, ut hic commodius tractari debeat.

DILATATIONES SIVE DISTRACTIONES A VIOLENTIA EXTERNA.

1. Bacula lignea et similia flexionem nonnullam patiuntur, sed per vim; illa autem vis distrahit partes exteriores ligni in loco ubi arcuatur, et comprimit partes interiores: quod si vis illa paulo post remittatur, restituit se baculum, et resilit; sed si diutius in ea positura detineatur, figitur in ea, nec resilit amplius.

2. Similis est ratio horologiorum, (eorum scilicet quæ moventur per torturam laminarum,) in quibus videre est continuum et graduatum nixum laminarum ad se restituendum.

3. Pannus, et similia filacea, extenduntur majorem in modum, et resiliunt citius dimissa; non resiliunt longius detenta.

4. Caro, quæ surgit in ventosis, non est tumor, sed violenta extensio carnis integralis per attractionem.

5. Qualem rarefactionem tolleret aër, (pro modo scilicet violentiæ,) tali experimento elicere possis. Accipe ovum vitreum, in quo sit foramen minutum: exsuge aërem anhelitu quantum potes; deinde affatim obtura foramen digito, et merge ovum in aquam ita obturatum. Post tolle digitum, et videbis ovum attrahere aquam, tantum scilicet, quantum exsuctum fuerit aëris; ut aër, qui remansit, possit recuperare exporrectionem suam veterem, a qua fuerat vi distractus et extensus. Memini autem intrasse aquam, quasi ad decimam partem contenti ovi. Etiam me-

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mini me reliquisse ovum (post exsuctionem) cera obturatum per diem integrum, ut experirer, si per moram illam (quæ certe nimis brevis erat ad experimentum justum) aër dilatatus figi posset, nec curaret de restitutione, ut fit in baculis et pannis. Sed cum tolleretur cera, aqua iatrabat ut prius; etiam si ovum appositum fuisset ad aurem, aër novus intrarat cum sibilo.

6. At qualem rarefactionem aqua sustineat, possit forte hoc modo deprehendi. Accipe folles: attrahe aquam, quantum impleat cavum follium: neque tamen eleva folles ad summum, sed quasi ad dimidium. Deinde obstrue folles, et nihilominus eleva eos paulatim; et videbis, quatenus ista aqua recepta se dilatari patiatur. Aut etiam per fistulam, aut syringam, attrahe nonnihil aquæ; deinde foramen obtura, et embolum adhuc paulatim attrahe.

Commentatio. Suspicor etiam fieri distractionem spiritus aquæ in conglaciationem; sed subtilis est hujus rei ratio. Primo, pro certo poni possit, in omni excoctione (puta luti, cum fiunt lateres et tegulæ, crustæ panis, et similium) multum ex pneumatico corporis exhalare, et evolare, (ut paulo post monstrabimus,) atque inde necessario sequi, ut partes crassiores per motum nexus magna ex parte (nam est et alius motos, de quo nunc sermo non est) se contrahant. Nam sublato spiritu, nec alio corpore facile subintrante, ne detur vacuom (ot loquuntur) in locum illum, quem occupabant spiritus, succedunt partes; unde fit illa durities et contractio. Eadem prorsus ratione, sed modo contrario, videtur necessario sequi, ut spiritus in conglaciatione distrahantur. Etenim partes crassiores per frigus contrahuntur; itaque relinquitur aliquod spatium (intra claustra corporis) occupandum: unde sequitur, si aliud corpus non succedat, ut spiritus præinexistens per motum nexus distrahatur tantum, quantum partes crassiores contrahantur. Sane id conspicitur in glacie, quod corpus interius reddatur rimosum, crustulatum, et parum tumescat; quodque ipsa glacies, non obstante insigni partium contractione, sit (in toto) levior quam ipsa aqua: idque dilatationi pneumatici merito attribui possit.

Connexio. Transeundum ad dilatationes per decervationem; quando, scilicet, quod erat cumulatum et acervatum, fit applanatum. Istæ autem dilatationes pro pseudo-dilatationibus habendæ sunt; dilatatio enim fit in positura partium, non in substantia corporis. Siquidem corpus manet in eadem densitate substantiæ; sed figuram nanciscitur ampliorem in superficie, minorem in profunditate.

DILATATIONES PER DECERVATIONEM.

1. Aurum per malleationem in immensum dilatatur, ut in auro foliato; item per distractionem; ut in argenteis filis inauratis: inauratio enim fit in massa antequam distrahatur.

2. Argentum etiam fit foliatum, licet non ad tam exquisitam tenuitatem quam aurum. Reliqua quoque metalla per malleationem dilatantur in bracteolas et lamellas tenues.

3. Cera, et hujusmodi, premuntur, et finguntur in oblinimenta tenuia.

4. Gutta atramenti in calamo dilatatur ad exarationem multarum literarum: quod et fit per penicillum in pigmentis, et vernice.

5. Crocus in parva quantitate magnam inficit quantitatem aquæ.

Connexio. Atque de dilatationibus, et rarefactionibus, et aperturis corporum, hæc inquisita sunto. Superest jam ut de contrariis actionibus simili diligentia inquiramus; id est, de contractionibus, et condensationibus, et clausuris corporum. Quam partem visum est seorsum tractare, eo magis, quod non omnes actiones ex hac parte sint reciprocæ; sed nonnullæ earum propriæ, et per se explicandæ. Etiam, quamvis contraria ratione consentiant; tamen in experimentis valde diversis investigantur, et se conspicienda præbent.

Actioni dilatationis per introceptionem corporis alieni reciproca est actio contractionis per emissionem aut expressionem corporis alieni: itaque de eo primo est inquirendum.

CONTRACTIONES PER EMISSIONEM AUT DEPOSITIONEM COARCTATIS INTRACEPTI.

1. Consule instantias de dilatationibus per introceptionem, et oppone illis easdem instantias postquam dilatationes resederint: in his intelligimus, ubi datur residere.

2. Metalla pura et perfecta, licet variis modis vexentur et altercatur, ut in sublimationibus, præcipitationibus, malagmatibus, dissolutionibus, calcinationibus, et hujusmodi; tamen (natura metallica cum aliis corporibus non bene conveniente) per ignem et conflationem plerumque restituuntur, et vertuntur in corpus quale prius. Est autem condensatio ista minus vera, quia videtur esse nihil aliud quam emissio et exclusio aëris, qui se miscuerat, aut aquarum, in quibus dissoluta erant, ad hoc, ut partes genuinæ corporis metalli rursus coire possint. Neque tamen dubium est, quin corpus longe minus spatium occupet quam prius, sed minime videtur densari substantia. Atque hæc potestas clavium, quæ aperit et claudit, viget maxime in metallis. Etiam metalla impura, et marcasitæ, atque mineræ metallorum, eodem modo (per ignem congregatis partibus homogeneis, et emissa et exclusa scoria, et purgamentis) depurantur. Etenim omne metallum purum densius est et ponderosius impuro.

3. Ad magis aretam autem condensationem metallorum facit, si metalla sæpius fusa, sæpius in aquis extincta sint; unde magis obstinata fiunt, et indurescunt. Utrum vero pondere ipso angeantur, pro ratione dimensi, hactenus non constat. De eo fiat experimentum. Atque ista induratio magis adhuc potenter fit per crebras solutiones et restitutiones, quam per fusiones et extinctiones. Inquirendum etiam est, in quali genere, aut mixtura aquarum, indurescant magis.

4. Reperiuntur tamen modi mortificationum metallorum, id est, prohibitionum, ne cum soluta et aperta fuerint, restituantur. Id maxime cernitur in argento vivo; quod, si strenue tundatur, et inter tundendum injiciatur parum terebinthinæ, aut salivæ hominis, aut butyri, mortificatur argentum vivum, et nanciscitur aversationem et fastidium ad se restituendum.

Mandatum. Diligenter inquirendum de mortificationibus, hoc est, de impedimentis restitutionem omnium metallorum. Magna enim debet esse antipathia eorum, quæ prohibet ne ea coëant. Cumque omnis restitutio ipsorum sit genus quoddam condensationis, pertinebit scilicet cognitio privationis ad cognitionem formæ.

Historia. Dilatationibus per spiritum innatum se expandentem non opponitur proprie actio aliqua reciproca: cum contractio res aliena sit a spiritu, qui non contrahitur, nisi cum aut suffocatur, aut patitur, aut colligit se (arietis instar) ut fortius se dilatet. Attamen commode hoc loco substituemus actionem illam, quæ est propria partium crassiorum, sed per accidens imputari debet spiritui innato; ea est, ubi per evolationem, sive emissionem spiritus, contrahuntur et indurantur partes. Spiritus autem emittitur vel ex agitatione sua propria, vel solicitatus ab aëre ambiente, vel provocatus et irritatus ab igne, seu calore.

Commentatio. Idem faciunt quoad attenuationem et emissionem spiritus, et actiones quæ ex ea sequuntur, ignis sive calor, et tempus sive ætas. Verum ætas per se curriculum est solummodo, aut mensura motus. Igitur cum de ætate loquimur, intelligimus de virtute et operatione composita ex agitatione spiritus innati, et aëre ambiente, atque radiis cœlestium. Sed illud interest, quod ignis et calor vehemens dilatet corpora confertim, et fortiter, et visibiliter; ætas autem, instar caloris lenissimi, paulatim, et leniter, et occulto: fumi enim et vapores scilicet spissi sunt et conspicui, perspiratione vero neutiquam; ut manifestum est in odoribus. Attamen magis subtilis et exquisita est ea corporum attenuatio et rarefactio, quæ fit per ætatem, quam quæ fit per ignem. Nam ignis præcipitans actionem, pneumaticum, quod in corpore est, rapide evolare facit; humidum quoque quod præparatum est in pneumaticum subinde vertit, atque tale factum emittit: unde partes tangibiles sedulo se interim et gnaviter constipant, et non parum spiritus (tanquam manu injecta) morantur et detinent. At ætas pneumaticum jam factum ad evolationem non urget subito; unde fit ut illud diutius mancns in corpore, quicquid in tenue digeri possit, sensim et seriatim præparet, parum ex pneumatico jam facto placide et successive interim evolante; adeo ut anticipet fere, et tanquam fallat constipationem partium tangibilium. Quamobrem in dissolutione per ætatem, sub finem negotii, parum admodum tangibilis figitur et manet. Etenim pulvis ille putris, qui per longos annorum circuitus manet, tanquam consumptionis reliquiæ, (qualis in sepulchris et monumentis vetustis nonnunquam invenitur,) res quasi nihili est, et omni incineratione, quæ fit per ignem, minutior et magis destitutus. Nam cineres etiam succum habent, qui possit elici, et verti in sales: hujusmodi pulvis minime. Verum, quod ad inquisitionem præsentem pertinet, et cujus causa hæc dicta sunt, certum est spiritum, quamdiu detinetur in corpore, partes tangibiles colliquare, intenerare, conficere, subrucre; verum ab ejus emissione partes tangibiles continuo se contrahere et constipare.

CONTRACTIONES PER ANGUSTATIONEM PARTIUM CRASSIORUM POST SPIRITUM EMISSUM.

1. In senectute cutes animalium corrugantur, et membra arescunt. Historia.

2. Pyra et poma diu servata rugas colligunt; nuces autem ita contrahuntur, ut non impleant testam.

3. Casei veteres in cortice exteriore efficiuntur rugosi. Ligna in trabibus, postibus, et palis, tractu temporis, (præsertim si ponantur viridia,) contrahuntur in arctum, ut disjungantur et hient. Simile fit in globis lusoriis.

4. Terra in magnis siccitatibus divellitur, et in superficie sua plena rimarum efficitur: etiam quandoque rimæ tam in profundum penetrant, ut ad eruptionem aquarum causam præbeant.

Monitum. Nemo nugetur, aiens, istam contractionem in desiccationibus nihil aliud esse, quam absumptionem humidi. Nam si id tantum ageretur, ut humidum in spiritum versum evolaret, deberent corpora manere in priore exporrectione et dimenso suo, et solummodo cava fieri, ut pumices, aut suber; non autem localiter contrahi et minui dimenso suo.

Historia. 5. Lutum per fornaces cogitur in lateres et tegulas: at si instet calor vehemens, ut in medio fornacis, vertitur etiam nonnulla pars luti, et funditur in vitrum.

6. Ligna, si suffocetur flamma, vertuntur in carbones; materiam scilicet magis spongiosam et levem, quam ligna cruda.

7. Metalla pleraque sepulta in crucibulis inter prunas ardentes, et multo magis per fornaces reverberatorias, vertuntur in materiam friabilem, et calcinantur.

8. Complura fossilia et metalla, et ex vegetabilibus nonnulla, vitrificantur per ignes fortes.

9. Omnia quæ assantur, si ignem plus æquo tolerent, incarbonantur, et recipiunt se in angustius dimensum.

10. Papyrus, membrana, lintea, pelles, et similia, per ignem non solum corrugantur in partibus, sed etiam se complicant et convolvunt, et tanquam rotulantur in toto.

11. Lintea a flamma primo concepta, paulo post suffocata, vertuntur in substantias raras; quæ vix inflammantur, sed facile ignescunt; quibus utimur ad fomites flammarum.

12. Pinguia, ut cera, butyrum, lardum, oleum, et similia, per ignem deveniunt frixa et fæculenta, et tanquam fuliginosa.

13. Ova contrahuntur, abigne, et quatenus ad albumen ipsorum, colorem mutant a claro in candidum.

14. Quinetiam si ovum testa exutum injiciatur in spiritum vini bonum et fortem, elixatur, et fit candidum; similiter et offa panis injecta in ipsum devenit quasi tosta.

Observationes. 1. Quamdiu (ut paulo ante innuimus) spiritus in corpore detinetur, si per ignem aut calorem excitatus et dilatatus fuerit, tamdiu agitat se, molitur exitum, partes tangibiles emollit, intenerat, colliquat: atque hoc est proprium opus spiritus, qui digerit et subigit partes. Sed

postquam spiritus sibi exitum invenerit, et emissus fuerit, tum prævalet opus partium, quæ a spiritu vexatæ conspirant, et se stringunt; tam ex desiderio nexus et mutui contactus, quam ex odio motus et vexationis. Atque inde sequitur coarctatio, induratio, obstinatio.

2. Est in processu contractionis partium ab igne finis et ultimitas: nam si minor sit copia materiæ per violentam deprædationem ignis, quam ut cohærere possint; tum demum se deserunt, et incinerantur et calcinantur.

Connexio. Atque de contractionibus, quæ fiunt ab emissione spiritus e corporibus, sive is emittatur per ætatem, sive per ignem, sive per calorem potentialem, hæc inquisita sunto. Actioni vero dilatationis per calorem actualem externum reciproca est actio contractionis per frigus actuale externum. Atque hæc condensatio est omnium maxime propria et genuina; maxime potens etiam foret, nisi quod non habemus hic apud nos in superficie terræ frigus aliquod intensum. Frigus autem et caloris remissio (nam utrumque hoc loco conjungere visum est) alia simpliciter, manente natura sua, condensat; alia rarefacta (sed imperfecte) restituit; alia per condensationem plane vertit et transformat de natura in naturam. De his omnibus jam pauca sunt proponenda.

CONTRACTIONES CORPORUM PER FRIGUS ACTUALE EXTERNUM.

1. Asa in vitro calendari pereipit gradus tam frigidi quam calidi. Atque temporibus nivalibus super caput vitri quasi pileum ex nive posnimus; qui, licet aër ipse illo tempore fuisset hiemalis et asper, tamen frigus in tantum auxit, ut aqua per paucos gradus, aëre contracto, insurgeret.

2. Superius posuimus, aërem in vitro ad tertias per calorem dilatatum fuisse, atque tantundem, remittente calore, se contraxisse.

Mandata. 1. Experimento plane dignum est, ut probetur, utrum aër per calorem dilatatus figi in eadem exporrectione possit, ut se restituere et contrahere non laboret. Itaque accipe vitrum calendare robustum, idemque vehementer calefacito; deinde os bene obturato, ne aër se contrahere possit; et per aliquot dies obturatum dimittito: deinde in aquam ita obturatum mergito; et postquam in aqua fuerit, aperito, et videto quantum aquæ trahat, atque utrum sit ad eam proportionem quam alias tracturum fuisset, si vitrum statim in aquam fuisset missum.

2. Etiam obiter nota, (etsi ad titulum de calido et frigido potius pertineat,) utrum aër, ita fortiter dilatatus et per vim detentus, retineat calorem suum multo diutius, quam si os vitri apertum fuisset.

Historia. 1. Stellæ tempore hiemali, noctibus valde serenis et gelidis, apparent grandiores quam noctibus æstivis serenis: quod fit præcipue ex universali condensatione aëris, qui tum vergit magis ad naturam aquæ: nam sub aqua omnia apparent longe grandiora.

2. Rores matutini sunt proculdubio vapores, qui in aërem purum non erant plene dissipati et versi, sed hærebant imperfecte mixti, donec per frigora noctis, præsertim in regione media quam vocant aëris, fuerint repercussi, et in aquam condensati.

3. Condensatio pluviæ, et nivis, et grandinis fit similiter per frigus mediæ regionis, quod vapores coagulat magis (ut plurimum) in alto, quam rores. Occurrunt vero dubitationes duæ, circa quas diligens fieri debet inquisitio. Altera, utrum guttæ ipsorum congelentur et condensentur in ipso casu; an fuerint illæ primo collectæ et congregatæ in moles majores aquarum, in aëre (propter distantiam a terra) pensiles, quæ postea, per violentiam aliquam conquassatæ, frangunt se, et comminuunt in guttas; ut in nonnullis cataractis Indiæ Occidentalis, quæ tam subito et confertim descendunt, ut videantur quasi ex vasibus fusæ et dejectæ. Altera, utrum non solum vapores, (qui olim fuerunt humores et aquæ, et solummodo restitunntur,) sed etiam pars magna aëris puri et perfecti per frigus (in illis regionibus vehemens et intensum) non fuerit coagulata, et mutata plane, et versa in pluviam, et reliqua, de quo paulo post inquiremus.

4. In distillationibus, humores primo vertuntur in vapores, illi, per remotionem ab igne destituti, per latera stillatorii contrusi, et nonnunquam per frigidam ab extra infusam accelerati, restituunt se in aquas et liquores. Imago prorsus familiaris rorum et pluviæ.

5. Argentum vivum præcipue, necnon metallica alia, cum volatilia facta fuerint, properant tamen ad se restituendum, et occursu alicujus solidi et materiati magnopere gaudent. Itaque facile hærent, facile decidunt; adeo ut quandoque sit necesse vapores ipsorum igne persequi, et de igne in ignem transmittere, factis tanquam scalis receptaculorum ignis, ad nonnullam distantiam inter se, circa vas; ne vapor, postquam per ascensionem paulo fuerit remotior ab igne, citius quam expedit se restituat.

6. Quæ ab igne colliquata fuerint, post remissionem caloris densantur et consistunt ut prius; ut metalla, cera, adeps, gummi, etc.

7. Vellus laneum, super terram diutius jacens, colligit pondus; quod fieri non posset, nisi aliquid pneumaticum densaretur in ponderosum.

8. Solebant antiquitus nautæ, velleribus lanæ, tanquam tapetibus aut aulæis, vestira latera navium noctu, ita ut non attingerent aquam; atque inde mane exprimere aquam dulcem, ad usum navigantium.

9. Etiam expertus sum de industria, quod alligando quatuor uncias lanæ ad funem, qui demittebatur in puteum 28 orgyiarum, ita tamen ut aquam per sex orgyias non attingeret, ex mora unius noctis crevisset pondus lanæ ad quinque uncias et drachmam unam; et hæsissent per exterius lanæ plane guttæ aquæ, ut ex iis tanquam lavare aut madefacere manus quis possit: idque iterum atque iterum expertus sum, variante quantitate ponderis, sed semper multum aucta.

10. Lapides, ut marmora et silices, atque etiam trabes ligneæ, (præsertim pictæ et oblitæ oleo,) manifesto madefiunt sub regelationibus aut tempestatibus australibus; ut tanquam exudare videantur, et guttæ inde detergi possint.

11. In gelu madido (quod Anglice *Rynes* vocant)

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fit irroratio in ædibus super vitra fenestrarum; idque magis interius versus cubiculum, quam exterius ad aërem apertum.

12. Anhelitus, qui est aër primo attractus, ac deinde intra cavum pulmonum brevi mora parum humefactus, super specula aut corpora polita (qualia sunt gemmæ, laminæ ensium, et similia) vertitur in quiddam roscidum, quod paulo post instar nubeculæ dissipatur.

13. Linteа etiam in ædibus (ubi ignis non accenditur) colligunt humiditatem, ita ut foco appropinquata fument.

14. Pulveres omnes in repositoriis conclusi colligunt humiditatem, ut hæreant et quasi glebefiant.

15. Existimatur origo fontium et aquarum dulcium, quæ ex terra scaturiunt, fieri ex aëre concluso in cavis terræ (præsertim montium) coagulato et condensato.

16. Nebulæ sunt condensationes aëris imperfectæ, commistæ et longe majore parte aëris et parum aquei vaporis; et fiunt, hieme quidem, sub mutatione tempestatis a gelu ad regelationem, aut e contra; æstate vero et vere, ex expansione roris.

Mandatum. 1. Quia versio aëris in aquam utilissima res esset, idcireo omnes instantiæ, quæ ad hoc innuunt, diligenter pensitandæ: atque inter alia in certo ponendum, utrum exsudationes marmorum, et similium, in tempestatibus australibus et pluviosis, sint meræ condensationes aëris a duritie et lævore lapidum repercussi, instar anhelitus in speculo; an participent nonnihil ex succo et pneumatico intrinsecus lapidis.

2. Probatio fieri possit per pannum linteum aut lanam supra lapidem positam: nam si tunc quoque exsudat lapis, participat exsudatio ex causa interiore.

Commentatio. Quod ipse aër vertatur in aquam in regionibus supernis, omnino necessario concluditur ex conservatione rerum. Nam certissimum est humores maris et terræ verti in aërem purum, postquam vaporum naturam, tempore, et consortio, et rarefactione plenaria, penitus exuerint. Itaque si non esset reciprocatio, ut aër vicissim quandoque verteretur in aquam, quemadmodum aqua vertitur in aërem, non sufficerent plane vapores, qui remanent novelli et imperfecte misti, ad pluvias, et imbres, et re-integrationes specierum; sed secutæ forent siccitates intolerabiles, et conflagratio, et venti impetuosi, et tumores aëris, ex aëre perpetuo multiplicato.

Historia. 1. In conglaciatione aquæ moles corporis integri non decrescit, sed intumescit potius. Fit tamen manifesta densatio in partibus; adeo ut conspiciantur rimæ et divulsiones intra corpus glaciei. Etiam quandoque (si aër subintret) cernuntur sensim capillitia, et fila, et flosculi. Glacies autem innatat aquæ; ut manifestum sit, non fieri densationem integralem.

2. Vinum tardius congelascit quam aqua; spiritus vini non omnino.

3. Aquæ fortes et argentum vivum, arbitror, non gelascunt.

4. Oleum et adeps gelascunt et densantur, sed non ad indurationem.

5. Gelu terram facit conerescere, eamque reddit siccam et duram. Poëta ait de regionibus hyperboreis:

"Æraque dissiliunt vulgo, vestesque rigescunt."

6. Id quod faciunt tabulæ lignеæ, præsertim in junctures glutinatis.

7. Etiam clavi, per contractionem frigoris, decidunt (ut referunt) e parietibus.

8. Ossa animalium per gelu deveniunt magis crispa; adeo ut fractura ipsorum per hujusmodi tempora et facilius fiat, et ægrius curetur. Denique omnia dura redduntur per frigus magis fragilia.

9. Condensantur manifesto aquæ aut succi in lapides splendentes sive crystallinos; ut videre est in cavernis subterraneis intra rupes; ubi cernuntur stillæ multiformes, (instar stillarum conglaciatarum,) sed fixæ et saxeæ, pensiles, quæ in ipso decasu (lento scilicet et tardo) congelatæ fuerunt. Utrum vero materia ipsarum sit prorsus aqua, an succus nativus lapidis, (saltem commistus,) in dubio est; præsertim cum gemmæ et crystalli in rupibus apertis exsurgant sæpe et excrescant (quod non potest imputari aquæ adhærenti) in sursum, et non decidant aut pendeant.

10. Lutum manifesto condensatur in lapides, ut videre est in aliquibus lapidibus magnis compositis ex parvis calculis, qui materia lapidea satis polita, et æque dura ac ipsi calculi, in interstitiis calculorum conglutinantur. Sed videtur hæc condensatio fieri non solum ex frigore terræ, sed per assimilationem, de qua paulo post.

11. Sunt quædam aquæ, quæ lignum, etiam paleas, (ut ainnt,) et hujusmodi, condensant in materiam lapideam; adeo ut pars ligni adhuc integri, quæ fuerit sub aqua, sit saxea; quæ emineat, maneat lignea; quod etiam vidi. De eo diligentius inquirendum, cum multum lucis præbere possit ad operativam condensationis.

Probabile est aquas metallicas, ob densitatem, quam contraxerint a metallis, posse habere naturam insaxantem. Fiat probatio per stipulam, folia crassiora, lignum, et similia. Sed arbitror, deligendas esse aquas metallicas, quæ fiunt per ablutionem aut crebram extinctionem, potius quam per dissolutionem; ne forte aquæ illæ fortes et corrosivæ impediant condensationem. Mandatum.

12. In China habent mineras porcellanæ artificiales, defodiendo (nonnullas orgyias subter terram) massam quandam cæmenti ad hoc præparati et proprii; quæ post quadraginta aut circiter annos sepulta vertitur in porcellanam; ita ut transmittant homines hujusmodi mineras de hærede in hæredem. Historia.

13. Accepi rem fidei probatæ, de ovo, quod diu jacuerat in fundo aquæ, quæ circumbat ædes; quod inventum versum erat manifesto in lapidem, manentibus coloribus et distinctionibus vitelli, albuminis, testæ: sed testa erat fracta hic, illic, et splendescebat in crustulis.

14. Audivi sæpius de versione albuminis ovi in materiam lapideam; sed nec veritatem rei nec modum novi.

15. Flamma proculdubio, cum extinguitur, vertitur in aliquid; videlicet in post-fumum; qui et ipse vertitur in fuliginem. De flammis vero spiritus vini, et hujusmodi aurarum, diligentior facienda est inquisitio, in quale corpus densentur, et qualis sit post-aura ipsarum. Neque enim apparet fuliginosum aliquod, ut in flammis ex oleosis.

Connexio. Atque de contractionibus corporum per frigus actuale, sive hoc fiat in aëre, sive in aquis et liquoribus, sive in flamma; ac rursus, sive illa sit contractio simplex, sive restitutio, sive coagulatio et versio, hæc inquisita sint. Sequitur actio quæ opponitur dilatationi per calorem potentialem, scilicet contractio per frigus potentiale.

CONTRACTIONES CORPORUM PER FRIGUS POTENTIALE.

1. Quemadmodum consulendæ sunt tabulæ medicinales qualitatum secundarum ad inquisitionem de calore potentiali, similiter consulendæ sunt ad inquisitionem de frigore potentiali: in quibus excerpi debent potissimum astrictio, repercussio, oppilatio, inspissatio, stupefactio.

2. Opium, hyoscyamus, cicuta, solanum, mandragora, et hujusmodi narcotica, spiritus animalium manifesto densant, in se vertunt, suffocant, et motu privant. Utrum vero super corpora mortua aliquid possint, fiat experimentum macerando carnes in succis ipsorum, ad experiendum si succedat denigratio et gangræna; vel macerando semina et nucleos, ad experiendum utrum mortificent ipsa, ut non crescant; vel linendo summitatem vitri calendaris per interius, succis ipsorum, ad experiendum utrum aliqualiter contrahant aërem.

3. Apud Indias Occidentales reperiuntur, etiam per deserta arcnosa et valde arida, cannæ magnæ, quæ super singulas juncturas, sive genicula, bonam copiam præbent aquæ dulcis, magno commodo itinerantium.

4. Referunt esse in quadam insula, aut ex Terceris, aut ex Canariis, arborem, quæ perpetuo stillet; imo quæ nubeculam quandam roscidam semper habeat impendentem. Digna autem res cognitu esset, utrum inveniatur in vegetabili aliquo potentiale frigus, quod denset aërem in aquam. Itaque de hoc diligenter inquiratur: sed magis existimo, has esse cannas geniculatas, de quibus diximus.

5. Inveniuntur super folia nonnullarum arborum (veluti quercus) quæ unita sunt, nec humorem sugunt aut condunt, præcipue mense Maii apud nos, rores dulces, instar mannæ, et quasi melliti: utrum vero sit vis aliqua in foliis coagulans, an tantum illa rores commode excipiant et custodiant, non constat.

6. Vix invenitur corpus, in quo cmineat tantum potentiale frigus, quantum in nitro. Nam ut aromata, et alia, licet ad tactum minime, tamen ad linguam aut palatum habent calorem perceptibilem; ita etiam nitrum ad linguam vel palatum habet frigus perceptibile, magis quam scmpervivum, aut aliqua herba ex maxime frigidis. Itaque videtur subjectum accommodum ad experiendam virtutem potentialis frigidi in nitro. Poterit autem esse mandatum tale:

Mandatum. Accipe minutam vesicam ex pellicula, quantum fieri potest, tenui. Infla et liga; et merge eam intra nitrum per aliquos dies, et exime; et nota, si vesica aliqualiter flaccescat: quod si facit, scias frigus nitri aërem contraxisse. Fiat idem experimentum mergendo vesicam intra argentum vivum: sed debet suspendi vesica per filum, ut mergi possit, et minus opprimi.

7. Accipe unguentum rosarum, aut hujusmodi; infunde aceti nonnihil: tantum abest ut liquor aceti reddat unguentum magis liquidum, ut contra illud reddat magis induratum et solidum.

Actioni dilatationis per amplexum opponitur actio contractionis per fugam et antiperistasin. Connexio.

Quemadmodum enim corpora versus grata et amica se laxant undiquaque, atque eunt in occursum; ita cum incidunt in odiosa et inimica, fugiunt undiquaque, et se contrudunt et constringunt.

CONTRACTIONES CORPORUM PER FUGAM ET ANTIPERISTASIN.

1. Calor ignis per antiperistasin videtur nonnihil densari, et fieri acrior, ut sub gelu.

2. Contra, in regionibus torridis, videtur densari frigus per antiperistasin; adeo ut, si quis se recipiat ex campo aperto et radiis solaribus sub arbore patula, statim cohorreat.

3. Attribuitur, nec prorsus male, ista operatio contractionis per antiperistasin mediæ regioni aëris, ubi colligit se et unit natura frigidi, fugiens radios solis directos sparsos a cœlo, et reflexos resilientes a terra; unde fiunt magnæ condensationes in illis partibus pluviarum, nivis, grandinis, et aliorum.

4. Merito dubitari possit, utrum opium et narcotica stupefaciant a potentiali frigido, vel a fuga spirituum. Nam videtur opium partes habere calidas ex fortitudine odoris, ex amaritudine, et provocatione sudoris, et aliis signis. Verum cum emittat vaporem inimicum et horribilem spiritibus, fugat illos undiquaque; unde se coagulant, et suffocantur.

Actioni dilatationis, quæ fit per assimilationem et versionem in tenuius, opponitur actio contractionis, quæ fit per assimilationem et versionem in densius. Intelligimus autem, quando hoc fit non per frigidum, vel actuale vel potentiale, sed per imperium corporis magis activi, quod se multiplicat ex corpore magis passivo. Assimilatio autem ad densum magis rara est, et minus potens multo, quam assimilatio ad rarum; quia corpora densa magis sunt ignava et inertia ad opus assimilationis quam tenuia. Connexio.

CONTRACTIONES CORPORUM PER ASSIMILATIONEM, SIVE VERSIONEM IN DENSIUS.

1. Supra notavimus, lutum inter lapides parvos densari in materiam lapideam.

2. Latera doliorum densant fæces vini in tartarum.

3. Dentes densant ea, quæ ex manducatione cibi et humoribus oris adhærent in squamas, quæ purgari et abscindi possint; verum æque duras ac ipsum os dentium.

4. Omnia dura et solida aliquid ex liquoribus et in fundo (maxime) et per latera adhærentibus condensant.

5. Quæcunque alimenta vertuntur in corpus alimentatum magis densum quam corpus ipsius alimenti (sicut cibus et potus in animalibus vertuntur in ossa, calvariam, et cornua) in assimilando (ut manifestum est) condensantur.

Connexio. Actioni dilatationis per violentiam externam, sive ex appetitu sive contra appetitum corporis dilatati, opponitur [actio] contractionis per violentiam similiter externam; cum corpora ponuntur in necessitate, ab illis quæ in ipsum agunt, cedendi, et se comprimendi.

CONTRACTIONES CORPORUM, QUÆ FIUNT PER VIOLENTIAM EXTERNAM.

1. Aer per violentiam, sive compressionem externam, aliquam condensationem facile patitur; majorem vero non tolerat: ut in violento impetu ventorum et terræ-motibus liquet.

2. Accipe catinum lignеum, inverte concavum ejus, et dimitte in aquam perpendiculariter, et facito illum descendere, impellens manu. Portabit secum aërem usque in fundum vasis, nec recipiet aquam interius, nisi parum infra summa labra: id ex colore ligni madefacti apparebit. Tanta autem fuerat condensatio aut compressio aëris, non amplior. Hoc ipsum insigniter apparebat, invento instrumento ad usum operariorum sub aqua. Illud tale erat: Deprimebatur dolium magnum et concavum aëre impletum. Illud stabat supra tres pedes metallicos, crassos, ut mergi posset: pedes erant breviores statura hominis. Urinatores, cum respiratione iis opus esset, flectebant se, et inserebant capita ipsorum in dolium, et respirabant: et hoc repetebant, et opus continuabant ad moram nonnullam; quosque scilicet aër, qui per insertionem capitis semper in quantitate nonnulla e dolio exibat, ad minimum diminutus esset.

3. At quantum ipsum condensationis, quod libenter toleraturus sit aër, cognoscere et supputare possis hoc modo: Accipe pelvem aquæ plenam: mitte in eam globulum ex metallo, aut lapidem, qui resideat in fundo. Superimpone catinum, vel impellens manu, vel ex metallo ita fabricatum, ut fundum sponte petat. Si globulus fuerit talis magnitudinis, ut aër condensationem (qualis ad globulum intra catinum recipiendum sufficiat) libenter pati possit, condensabit se aër placide, et nullus erit alius motus; sin majoris fuerit magnitudinis, quam aër bene ferre possit, resistet aër, et levabit latus aliquod ipsius catini, et exibit in bullis.

4. Etiam ex compressione vesicæ videbis quousque comprimi possit sine ruptura; aut etiam ex follibus levatis, et denuo obturatis, prius foraminibus compressis. De condensatione aquæ tale a nobis factum est experimentum: Globum fieri fecimus plumbeum, cum lateribus bene crassis, et foramine in summo non magno. Globum aqua replevimus, et foramen metallo (ut meminimus) optime solidavimus. Tum globum illum, tanquam ad duos polos contrarios, primo malleis, deinde per pressorium robustum, fortiter compressimus. Cum autem ea applanatio multum sustulisset ex capacitate globi, adeo ut ad octavam quasi diminuta fuisset, tamdiu et non amplius sustinuit se aqua condensari. Sed ulterius vexata et compressa non tolerabat, sed exibat aqua ex multis partibus solidi metalli, ad modum parvi imbris.

5. At omnis motus, quem vocant, violentus, veluti pilarum e tormentis, sagittarum, spiculorum, machinarum, et aliorum infinitorum, expeditur per compressionem præternaturalem corporum, et nixum ipsorum ad se restituendum; quod cum commode ad tempus facere non possint, loco moventur. Nam solida, præsertim dura, ulteriorem compressionem ægre admodum tolerant. Verum hujusce rei inquisitionem ad titulum de motu libertatis rejicimus. Etenim, ut sæpius diximus, titulus præsens de denso et raro spicas tantum legit non demetit.

6. Quo corpora sunt rariora, eo ab initio se contrahunt facilius; quod si ultra terminos suos compressa fuerint, eo se vindicant potentius; ut in flamma et aëre clauso manifestatur.

7. Flamma simpliciter compressa (licet sine flatu, ut in pulvere pyrio) tamen magis furit; ut conspici datur in fornacibus reverberatoriis, ubi flamma impeditur, arctatur, repercutitur, sinuat.

Monitum. Dilatationi per deacervationem non opponitur actio reciproca: quia corpora deacervata non coacervantur rursus, nisi per conflationem: ut in restitutione metallorum, de qua supra.

Commentatio. Est et aliud genus fortasse contractionis corporum, non ex reciprocis, sed positivum, et per se. Arbitramur enim, in dissolutione corporum quæ fit in liquoribus, ut in dissolutione metallorum, etiam gummi, sacchari, et similium, recipi corpus aliquatenus intra liquorem; neque tamen liquorem pro rata parte corporis recepti dilatari, aut exporrigi. Quod si fit, sequitur ut sit condensatio; cum idem spatium contineat plus corporis. Certe in dissolutione metallorum, si aqua semel exceperit onus suum, non dissolvit amplius, nec operatur. Hanc autem condensationem (si talis quæpiam sit) contractionem corporum per operationem appellare possumus.

Mandatum. Immitte aquam in cineres pressos ad summum; et nota diligenter, quantum decrescat de exporrectione cinerum, postquam receperint aquam, ab ea, quam habuerunt prius intermisto aëre.

Observationes. Efficientia dilatationis corporum, quæ ex inquisitione priore in lucem prodeunt, sunt novem. 1. Introceptio, sive admissio corporis alieni. 2. Expansio naturalis, sive præternaturalis, spiritus innati. 3. Ignis, sive calor externus actualis; aut etiam remissio frigoris. 4. Calor externus potentialis, sive spiritus auxiliares. 5. Liberatio spirituum a vinculis partium. 6. Assimilatio ex imperio corporis rarioris magis activi. 7. Amplexus, sive [itio in occursum, corporis amici. 8. Distractio a violentia externa. 9. Deacervatio, sive] applanatio partium.

Efficientia vero contractionis corporum sunt octo. 1. Exclusio aut depositio corporis introcepti. 2. Angustatio sive contractio partium post spiritum emissum. 3. Frigus externum actuale; aut etiam remissio caloris. 4. Frigus externum potentiale. 5. Fuga et antiperistasis. 6. Assimilatio ex impe-

rio corporis densioris magis activi. 7. Compressio per violentiam exteruam. 8. Oneratio, si modo aliqua sit.

Actiones dilatationis per spiritum innatum, et per liberationem spirituum, et per deaeervationem; atque rursus, actiones eontractionis per constrictionem, sunt actiones sine reciproco. Reliquæ actiones sunt reeiprocæ.

Dilatationes per introceptionem et per deacervationem sunt pseudo-dilatationes; sicut et eontractiones per exclusionem sunt pseudo-condensationes; sunt enim locales, non snbstantiales.

Expansio per ignem sive calorem sine separatione est omnium simplicissima: ea fit in pneumatieu puro, sicut aëre; ubi nihil exhalat, nihil resident, sed mera fit dilatatio, eaque ad ampliationem spatii sive exporrectionis insignem. Utrum simile qnippiam fiat in flamma, videlicet, utrum flamma post expansionem primæ accensionis (quæ est magna) jam facta flamma (ubi magnus est ambientium ardor) se adhuc magis expandat, difficile cognitu est, propter celerem et momentaneam extinctionem flammæ: verum de hoc in titulo de flamma inquiremus. Proxima huic dilatationi (quatenus ad simplicitatem) est expansio, quæ fit in colliquatiunc metallorum, aut in emollitione ferri et ceræ, et similium, ad tempus, antequam aliquid fiat volatile et emittatur. Verum hæc dilatatio occulta est, et fit intra claustra corporis integralis, nec visibiliter exporrectionem mutat aut ampliat. At simul ac incipiat in eurpore aliquo quippiam evulare, tum actiones fiunt complicatæ, partim rarefacientes, partim contrahentes: adeo ut contrariæ illæ actiones ignis, quæ vulgo notantur,

> "Limus ut hic durescit, et hæc ut cera liquescit,
> Uno eodemque igni,"

in hoc fundentur, qnod in altera spiritus emittitur, in altera detinetur.

Condensatio quæ fit per ignem, licet non sit pseudodensatio, (est enim substantialis,) tamen est condensatio potius secundum partes, quam secundum totum. Nam eontrahuntur certe partes crassiures; ita tamen ut corpus integrum reddatur magis cavum et porosum, et minus ponderosum.

CANONES MOBILES.

1. Summa materiæ in universo eadem manet; neque fit transactio, aut a nihilo, aut ad nihilum.

2. Ex summa in aliquibus corporibus est plus, in aliquibus minus, sub eodem spatio.

3. Copia et paucitas materiæ constituunt nutiones densi et rari, recte aceeptas.

4. Est terminus, sive non ultra, densi et rari, sed non in ente aliquo nubis noto.

5. Non est vacuum in natura, nec congregatum nec intermistum.

6. Inter terminos densi et rari est plica materiæ, per quam se complieat et replicat absque vacuo.

7. Differentiæ densi et rari in tangibilibus nobis notis parum excedunt rationes 32 partium.

8. Differentia a rarissimo tangibili ad densissimum pneumaticum habet rationem centuplam et amplius.

9. Flamma est aëre rarior, ut et oleum aqua.

10. Flamma non est aër rarefactus, ut nec oleum est aqua rarefacta; sed sunt plane corpora heterogenea, et non nimis amica.

11. Spiritus vegetabilium et animalium sunt auræ compositæ ex pneumatieu aëreu et flammeo; quemadmodum et succi eorum ex aqueu et uleoso.

12. Omne tangibile apud nos habet pneumatieum sive spiritum copulatum et inclusum.

13. Spiritus, quales sunt vegetabilium et animalium, nun inveniuntur apud nos soluti, sed in tangibili devincti et conclusi.

14. Densum et rarum sunt propria opificia calidi et frigidi, densum frigidi, rarum ealidi.

15. Calor super pneumatica operatur per expansionem simplicem.

16. Calor in tangibili exereet duplicem operationem; semper dilatando pneumaticum, sed crassum interdum contrahendo, interdum laxando.

17. Norma autem ejus rei talis est: spiritus emissus eurpus contrahit et indurat, detentus intenerat et colliquat.

18. Colliqnatio incipit a pneumatico in corpore expandendo; aliæ dissolutiunes a crassu, liberando operationem pneumatiei.

19. Post calorem et frigus, potentissima sunt ad rarefactionem et condensationem corporum consensus et fuga.

20. Restitutio a violentia et dilatat et condensat, in adversum violentiæ.

21. Assimilatio et dilatat et condensat, prout est assimilans assimilato rarius aut densius.

22. Qua eorpora sunt rariora, eo majurem sustinent et dilatationem et eontraetionem per externam violentiam ad certos terminos.

23. Si tensura aut pressura in corpore raro transgrediatur terminos sustinentiæ, tnm corpora rariora potentius se vindieant in libertatem, quam densiura, quia sunt magis activa.

24. Putentissima omninm expansio est expansio aëris et flammæ conjunctim.

25. Imperfectæ sunt dilatationes et contractiones, nbi faeilis et proclivis est restitutio.

26. Densum et rarum magnum habent consensum cum gravi et levi.

27. Parce suppeditatur hominl facultas ad condensationem, ob defectum potentis frigidi.

28. Ætas est instar ignis lambentis, et exequitur opera caluris, sed accuratius.

29. Ætas deducit corpora vel ad putrefactionem vel ad arefaetionem.

OPTATIVA CUM PRUXIMIS.

1. *VERSIO uëris in aquam.*

Fontes in cavis muntium. Exsudatio lapidum. Ruratio anhelitus. Vellus super latera navium, qn. Meteora aquea, etc. — Prox.

2. *Augmentum ponderis in metallis.*

Versio ferri in euprum, qu. Incrementum plumbi in eellis, qu. Versio argenti vivi in aurum, qn. — Prox.

3. *Insaxatio terræ et materiarum ex vegetabilibus aut animalibus.*

Aqua insaxans. Lapis compositus ex lapidibus parvis incrustatis. Stilli- — Prox.

cidia crystallina in speluncis. Calculi in renibus, et vesica, et cyste fellis. Squamæ dentium.

4. *Varii usus motus dilatantis et contrahentis in aëre per calorem.*

Prox. Vitrum calendare. Altare Heronis. Organum musicum splendentibus radiis solis. Impostura de imitatione fluxus et refluxus maris et amnium.

5. *Inteneratio membrorum in animalibus per calorem proportionatum et spiritum detentum.*

Emollitio ferri. Emollitio ceræ. Prox. Omnia amalgamata. Pertinet ad instaurationem juventutis: nam omnis humectatio, præter eam quæ fit ex spiritu nativo detento, videtur esse pseudo-inteneratio, et parum juvat; ut in proprio titulo videbimus.

Parce proponimus sub isto titulo optativa et vellicationes de praxi: quia cum Monitum. sit tam generalis et late patens, magis idoneus est ad informandum judicium quam ad instruendam praxin.

HISTORIA GRAVIS ET LEVIS.

ADITUS.

Motum gravitatis et levitatis, veteres motus naturalis nomine insigniverunt. Scilicet nullum conspiciebant efficiens externum; nullam etiam resistentiam apparentem. Quinimo citatior videbatur motus iste in progressu suo. Huic contemplationi, vel sermoni potius, phantasiam illam mathematicam de hæsione gravium ad centrum terræ, (etiam si perforata foret ipsa terra,) neenon commentum illud scholasticum, de motu corporum ad loca sua, veluti salem, asperserunt. His positis, perfunctos se credentes, nil amplius quærebant, nisi quod de centro gravitatis in diversis figuris, et de iis, quæ per aquam vehuntur, paulo diligentius quispiam ex illis quæsivit. Neque ex recentioribus quisquam operæ pretium circa hoc fecit, addendo solummodo pauca mechanica, eaque per demonstrationes suas detorta. Verum, missis verbulis, certissimum est, corpus non nisi a corpore pati; nec ullum fieri motum localem, qui non solicitetur, aut a partibus corporis ipsius quod movetur, aut a corporibus adjacentibus, vel in contiguo, vel in proximo, vel saltem intra orbem activitatis suæ. Itaque vires magneticas non inscite introduxit Gilbertus; sed et ipse factus magnes: nimio scilicet plura, quam oportet, ad illas trahens, et navem ædificans ex scalmo.

HISTORIA SYMPATHIÆ ET ANTIPATHIÆ RERUM.

ADITUS.

Lis et amicitia in natura stimuli sunt motuum, et claves operum. Hinc corporum unio et fuga, hinc partium mistio et separatio, hinc altæ atque intimæ impressiones virtutum, et, quod vocant, conjungere activa cum passivis; denique magnalia naturæ. Sed impura est admodum hæc pars philosophiæ de Sympathia et Antipathia rerum, quam etiam Naturalem Magiam appellant, atque (quod semper fere fit) ubi diligentia defuit, spes superfuit. Operatio autem ejus in hominibus prorsus similis est soporiferis nonnullis medicamentis, quæ somnum conciliant, atque insuper læta et placentia somnia emittunt. Primo enim intellectum humanum in soporem conjicit, decantando proprietates specificas et virtutes occultas, et cœlitus demissas; unde homines ad veras causas eruendas non amplius excitantur, nec evigilant; sed in hujusmodi otiis acquiescunt: deinde innumera commenta, somniorum instar, insinuat et spargit. Sperant etiam homines vani naturam ex fronte et persona cognoscere, et per similitudines extrinsecas proprietates internas detegere. Practica quoque inquisitionis simillima. Præcepta enim magiæ naturalis talia sunt, ac si confiderent homines terram subigere, et panem suum comedere absque sudore vultus; et per otiosas et faciles corporum applicationes rerum potentes fieri: semper autem in ore habent, et tanquam sponsores appellant magnetem, et consensum auri cum argento vivo, et pauca hujus generis, ad fidem aliarum rerum, quæ neutiquam simili contractu obligantur. Verum optima quæque laboribus, tum inquirendi tum operandi, proposuit Deus. Nos in jure naturæ enucleando, et rerum fœderibus interpretandis, paulo diligentiores erimus; nec miraculis faventes, nec tamen inquisitionem instituentes humilem aut angustam.

HISTORIA SULPHURIS, MERCURII, ET SALIS.

ADITUS.

Principiorum trias istud a chemistis introductum est; atque quoad speculativa, est ex iis, quæ illi afferunt, inventum optimum. Subtiliores ex iis, quique philosophantur maxime, elementa volunt esse terram, aquam, aërem, æthera; illa autem non materiam rerum esse ponunt, sed matrices; in quibus specifica semina rerum generant, pro natura matricis. Pro materia autem prima (quam spoliatam et adiaphoram ponunt scholastici) substituunt illa tria, sulphurem, mercurium, et salem, ex quibus omnia corpora sint coagmentata et mixta. Nos vocabula ipsorum accipimus; dogmata parum sana sunt. Illud tamen non male cum illorum opinione convenit, quod duo ex illis, sulphurem scilicet et mercurium (sensu nostro accepta) censemus esse naturas admodum primordiales, et penitissimos materiæ schematismos; et inter formas primæ classis fere præcipuas. Variare autem possumus vocabula sulphuris et mercurii, ut ea aliter nominemus; oleosum, aqueum; pingue, crudum; inflammabile, non inflammabile; et hujusmodi. Videntur enim esse hæ duæ rerum tribus magnæ prorsus, et quæ universum occupant et penetrant: siquidem in subterraneis sunt sulphur et mercurius, ut appellantur: in vegetabili et animali genere, sunt oleum et aqua: in pneumaticis inferioribus, sunt aër et flamma: in cœlestibus, corpus stellæ et æther purum; verum de ultima hac dualitate nil adhuc pronunciamus, licet probabilis videatur esse symbolizatio. Quod vero ad salem attinet, alia res est. Si enim salem intelligunt pro parte corporis fixa, quæ neque abit in flammam, neque in fumum; pertinet hoc ad inquisitionem fluidi et determinati, de quibus nunc non est sermo. Sin salem accipi volunt, secundum literam, absque parabola; non est sal aliquid tertium a sulphure et mercurio; sed mixtum ex utrisque per spiritum acrem devinctis. Etenim sal omnis habet partes inflammabiles; habet alias, flammam non solum non concipientes, sed eam exhorrentes et strenue fugientes. Nihilominus cum inquisitio de sale sit quiddam affine inquisitioni de duobus reliquis, atque insuper sit eximii usus, utpote vinculum utriusque naturæ, sulphureæ, et mercurialis, et vitæ ipsius rudimentum; illum etiam in hanc historiam et inquisitionem recipere visum est. At illud interim monemus de pneumaticis illis, aëre, flamma, stellis, æthere; nos illa (prout certe merentur) inquisitionibus propriis reservare; et de sulphure et mercurio tangibili (nimirum vel minerali, vel vegetabili, et animali) hic tantum historiam instituere.

HISTORIA VITÆ ET MORTIS:

SIVE

TITULUS SEXTUS IN "HISTORIA NATURALI ET EXPERIMENTALI AD CONDENDAM PHILOSOPHIAM:"

QUÆ EST, INSTAURATIONIS MAGNÆ PARS TERTIA.

Viventibus et posteris Salutem.

Cum "Historiam Vitæ et Mortis," inter sex designationes menstruas, ultimo loco posuerimus; omnino hoc prævertere visum est, et secundam edere, propter eximiam rei utilitatem; in qua, vel minima temporis jactura pro pretiosa haberi debet. Speramus enim et cupimus futurum, ut id plurimorum bono fiat; atque ut medici nobiliores animos nonnihil erigant, neque toti sint in curarum sordibus; neque solum propter necessitatem honorentur, sed fiant demum omnipotentiæ et elementiæ divinæ administri, in vita hominum proroganda et instauranda; præsertim cum hoc agatur per vias tutas, et commodas, et civiles, licet intentatas. Etsi enim nos Christiani ad terram promissionis perpetuo aspiremus et anhelemus; tamen interim itinerantibus nobis, in hac mundi eremo, etiam calceos istos et tegmina (corporis scilicet nostri fragilis) quam minimum atteri, erit signum favoris divini.

ADITUS.

De vita brevi, et arte longa, vetus est cantilena et querela. Videtur igitur esse tanquam ex congruo, ut nos, qui pro viribus incumbimus ad artes perficiendas, etiam de vita hominum producenda cogitationem suscipiamus, favente et veritatis et vitæ Auctore. Etsi enim vita mortalium non aliud sit, quam cumulus et accessio peccatorum et ærumnarum, quique ad æternitatem aspirant, iis leve sit lucrum vitæ; tamen non despicienda est, etiam nobis Christianis, operum charitatis continuatio. Quinetiam discipulus amatus cæteris superstes fuit; et complures ex patribus, præsertim monachis sanctis et eremitis, longævi fuerunt; ut isti benedictioni (toties in lege veteri repetitæ) minus detractum videatur post ævum Servatoris, quam reliquis benedictionibus terrenis. Verum ut hoc pro maximo bono habeatur, proclive est. De modis assequendi ardua inquisitio; eoque magis, quod sit et opinionibus falsis et præconiis vanis depravata. Nam et quæ a turba medicorum de humore radicali et calore naturali diei solent, sunt seductoria; et laudes immodicæ medicinarum chemicarum primo inflant hominum spes, deinde destituunt.

Atque de morte, quæ sequitur ex suffocatione, putrefactione, et variis morbis, non instituitur præsens inquisitio; pertinet enim ad historiam medicinalem: sed de ea tantum morte, quæ fit per resolutionem ac atrophiam senilem. Attamen de ultimo passu mortis, atque de ipsa extinctione vitæ, quæ tot modis, et exterius et interius, fieri potest, (qui tamen habent quasi atriolum communne, antequam ad atrienlum mortis ventum sit,) inquirere, affine quiddam præsenti inquisitioni esse censemus; sed illud postremo loco ponemus.

Quod reparari potest sensim, atque primo integro non destructo, id potentia æternum est, tanquam ignis Vestalis. Cum igitur viderent medici et philosophi, ali prorsus animalia, eorumque corpora reparari et refici; neque tamen id diu fieri, sed paulo post senescere ea, et ad interitum propere deduci; mortem quæsiverunt in aliquo, quod proprie reparari non possit: existimantes humorem aliquem radicalem et primigenium non reparari in solidum, sed fieri, jam usque ab infantia, appositionem quandam degenerem, non reparationem justam; quæ sensim cum ætate depravetur, et demum pravum deducat ad nullum. Hæc cogitarunt imperite satis et leviter: omnia enim in animali, sub adolescentia et juventute, reparantur integre; quinetiam ad tempus quantitate augentur, qualitate meliorantur; ut materia reparationis quasi æterna esse posset, si modus reparationis non intereideret. Sed revera hoc fit: Vergente ætate, inæqualis admodum fit reparatio; aliæ partes reparantur satis feliciter, aliæ ægre et in pejus; ut ab eo tempore, corpora humana subire incipiant tormentum illud Mezentii, ut viva in amplexu mortuorum immoriantur; atque facile reparabilia, propter ægre reparabilia copulata, deficiant. Nam etiam post declinationem et decursum ætatis, spiritus, sanguis, caro, adeps, facile reparantur; at quæ siccriores, aut porosiores sunt partes, membranæ, et tunicæ omnes, nervi, arteriæ, venæ, ossa, cartilagines, etiam viscera pleraque, denique organica fere omnia, difficilius reparantur, et cum jactura. Illæ autem ipsæ partes, cum ad illas alteras reparabiles partes, actu reparandas, omnino officium suum præstare debeant; activitate sua ac viribus imminutæ, functiones suas amplius exsequi non possunt. Ex quo fit, ut paulo post omnia ruere incipiant, et ipsæ illæ partes, quæ in natura sua sunt valde reparabiles, tamen deficientibus organis reparationis, nec ipsæ similiter amplius commode reparentur, sed minuantur, et tandem deficiant. Causa autem periodi ea est; quod spiritus, instar flammæ lenis, perpetuo prædatorius, et cum hoc conspirans aër externus, qui etiam corpora sugit, et arefacit, tandem officinam corporis, et machinas, et organa perdat, et inhabilia reddat ad munus reparationis. Hæ sunt veræ viæ mortis naturalis bene et diligenter animo volvendæ: etenim qui naturæ vias non noverit, quomodo is illi occurrere possit, eamque vertere?

Itaque duplex debet esse inquisitio, altera de consumptione, aut deprædatione corporis humani; altera de ejusdem reparatione aut refectione: eo intuitu, ut altera, quantum fieri possit, inhibeatur, altera confortetur. Atque prior istarum pertinet præcipue ad spiritus et aërem externum, per quos fit deprædatio; secunda ad universum processum alimentationis, per quem fit restitutio. Atque quoad primam inquisitionis partem, quæ est de consumptione, omnino illa cum corporibus inanimatis, magna ex parte, communis est. Etenim quæ spiritus innatus (qui omnibus tangibilibus, sive vivis sive mortuis, inest) et aër ambiens operatur super inanimata, eadem et tentat super animata; licet superadditus spiritus vitalis illas operationes partim infringat et compescat, partim potenter admodum inteudat et augeat. Nam manifestissimum est, inanimata complura absque reparatione, ad tempus bene longum durare posse: at animata, absque alimento et reparatione, subito concidunt et extinguuntur, ut et ignis. Itaque inquisitio duplex esse debet; primo contemplando corpus humanum, tanquam inanimatum et inalimentatum; deinde tanquam animatum et alimentatum: verum hæc præfati, ad topica inquisitionis jam pergamus.

TOPICA PARTICULARIA; SIVE ARTICULI INQUISITIONIS DE VITA ET MORTE.

1. De natura durabilis et minus durabilis, in corporibus inanimatis, atque simul in vegetabilibus, inquisitionem habeto; non copiosam, aut legitimam, sed strictim et per capita, et tanquam in transitu.

2. De desiccatione, arefactione, et consumptiona corporum inanimatorum, et vegetabilium, et de modis

et processu per quos fiunt; atque insuper de desiccationis, arefactionis, et consumptionis prohibitione et retardatione, corporumque in suo statu conservatione; atque rursus de corporum, postquam semel arefieri cœperint, inteneratione, et emollitione, et reviresscntia, diligentius inquirito.

Neque tamen de his ipsis perfecta aut accurata facienda est inquisitio, cum ex proprio titulo durabilis hæc depromi debeant, eumque non sint in inquisitione præsenti principalia, sed lumen tantummodo præbent ad prolongationem et instaurationem vitæ in animalibus. In quibus ipsis (ut jam dictum est) eadem fere usu veniunt, sed suo modo. Ab inquisitione autem circa inanimata, et vegetabilia, transeat inquisitio ad animalia præter hominem.

3. De animalium longævitate, et brevitate vitæ, cum circumstantiis debitis, quæ ad hujusmodi ævitates videantur facere, inquirito.

4. Quoniam vero duplex est duratio corporum, altera in identitate simplici, altera per reparationem; quarum prima in inanimatis tantum obtinet, secunda in vegetabilibus, et animalibus, et proficitur per alimentationem; ideo de alimentatione, ejusque viis, et processu inquirito: neque id ipsum exacte (pertinet enim ad titulos assimilationis, et alimentationis) sed, ut reliqua, in transitu.

Ab inquisitione circa animalia, atque alimentata, transeat illa ad hominem: cum vero jam deventum sit ad subjectum inquisitionis principale, debet esse in omnibus inquisitio magis exacta, et numeris suis absoluta.

5. De longævitate, et brevitate vitæ in hominibus, secundum ætates mundi, regiones, et climata, et loca nativitatis et habitationis, inquirito.

6. De longævitate, et brevitate vitæ in hominibus, secundum propagines et stirpes suas (tanquam esset hæreditaria); atque etiam secundum complexiones, constitutiones, et habitus corporis, staturas, necnon modos, et spatia grandescendi, atque secundum membrorum faeturas et compages, inquirito.

7. De longævitate, et brevitate vitæ in hominibus, secundum tempora nativitatis, ita inquirito, ut astrologica et schemata cœli in præsentia omittas; recipito tantum observationes (si quæ sint) plebeias, et manifestas, de partibus septimo, octavo, nono, et decimo mense; etiam noctu, interdiu, et quo mense anni?

8. De longævitate, et brevitate vitæ in hominibus, secundum victum, diætas, regimen vitæ, exercitia, et similia, inquirito; nam quatenus ad aërem, in quo vivunt, et morantur homines, de eo, in articulo superiore de locis habitationis, inquiri debere intelligimus.

9. De longævitate, et brevitate vitæ in hominibus, secundum studia et genera vitæ, et affectus animæ, et varia accidentia, inquirito.

10. De medicinis, quæ putantur vitam prolongare, seorsum inquirito.

11. De signis et prognosticis vitæ longæ et brevis, non illis quæ mortem denotant in propinquo (id enim ad historiam medicinalem pertinet); sed de iis quæ etiam in sanitate apparent et observantur, inquirito; sive sint physiognomica, sive alia.

Hactenus instituta est inquisitio de longævitate et brevitate vitæ, tanquam inartificialis et in confuso; huic adjicere visum est inquisitionem artificialem, atque innuentem ad praxim, per intentiones. Eæ genere sunt tres. Distributiones autem magis particulares intentionum earum proponemus, cum ad ipsam inquisitionem ventum erit. Tres illæ intentiones generales sunt: prohibitio consumptionis; perfectio reparationis; renovatio veterationis.

12. De iis, quæ corpus in homine ab arefactione et consumptione conservant et eximunt, aut saltem inclinationem ad eas remorantur et differunt, inquirito.

13. De iis, quæ pertinent ad universum processum alimentationis (unde fit reparatio in corpore hominis) ut sit proba, et minima cum jactura, inquirito.

14. De iis, quæ purgant inveterata et reponunt nova, quæque etiam ea, quæ jam arefacta et indurata sunt, rursus inteneram et humectant, inquirito.

Quoniam vero difficile est vias ad mortem nosse, nisi ipsius mortis sedem et domicilium (vel antrum potius) perscrutatus sis et inveneris; de hoc facienda est inquisitio; neque tamen de omni genere mortis, sed tantum de iis mortibus, quæ inferuntur per privationem et indigentiam, non per violentiam; illæ enim sunt tantum, quæ ad atrophiam senilem spectant.

15. De articulo mortis, et de atriolis mortis, quæ ad illum ducant, ab omni parte, (si modo id fiat per indigentiam, et non per violentiam,) inquirito.

Postremo, quoniam expedit nosse haracterem et formam senectutis, quod fiet optime, si differentias omnes in statu corporis et functionibus, inter juventutem et senectutem, diligenter collegeris, ut ex iis perspicere possis, quid sit illud tandem, quod in tot effectus frondescat; etiam hanc inquisitionem ne omittito.

16. De differentiis status corporis et facultatum in juventute atque in senectute; et si quid sit ejusmodi, quod in senectute maneat, neque minuatur, diligenter inquirito.

NATURA DURABILIS.

Ad Art. I. Historia.

1. Metalla in tantum ævum durant, ut tempus durationis ipsorum, hominum observationem fugiat. Etiam quando solvuntur per ætatem, rubiginem solvuntur, non per perspirationem; aurum autem per nentrum.

2. Argentum vivum, licet humidum sit et fluidum, atque per ignem facile fiat volatile; tamen (quod novimus) absque igne, per ætatem solam, nec consumitur, nec contrahit rubiginem.

3. Lapides, præsertim duriores, et complura alia ex fossilibus, longi sunt ævi; idque licet exponantur in aërem; multo magis dum conduntur sub terra; attamen nitrum quoddam collignnt lapides, quod illis est instar rubiginis: gemmæ autem et crystalla, metalla ipsa ævo superant: attamen elarore suo nonnihil a longa ætate muletantur.

4. Observatum est, lapides ex parte boreæ citius temporis edaeidate consumi, quam austro expositos, idque et in pyramidibus, et in templis, et aliis ædificiis manifestum esse: ferrum contra, ad austrum

expositum, citius rubiginem contrahere, ad septentrionem tardius, nt in bacillis illis ferreis aut cratibns, quæ ad fenestras apponnator, liquet. Nec mirum, cum ia omni potrefactione (qualis est rubigo) homiditas acceleret dissolutioaem; In arefactione simplici, siccitas.

5. In vegetabilibus (loquimur de avulsis nec vegetantibus) stemmata arborum duriorum, sive trunci, atqne ligna, et materies ex ipsis, per secula nonnulla dnrant. Partes antem stemmatis varie se habent; suat enim quædam arbores fistulosæ, nt sambucus, in quibus pulpa in medio mollior sit, exterius durius; at in arboribus solidis, qualis est qnercus, interios (quod cor arboris vocant) durat magis.

6. Folia plantarum et flores, etiam caules, exiguæ sunt durationis, sed solvuntnr in pulverem, seseque incinerant, nisi putrefiant; radices antem sunt magis durabiles.

7. Ossa animalinm din dnrant, ut videre est In ossuariis, scilicet repositoriis ossium defunctorum: cornua etiam valde durant; necnon dentes, sicut in ebore, et dentibus eqni marini.

8. Pelles etiam et corinm valde dorant, ut eernere est in pergamenis antiquorum librorum: quinetiam papyrus complura secula tolerat, licet pergamenæ duratione cedat.

9. Ignem passa din duraat, ut vitrum, lateres; etiam earues et fructus, ignem passi, dintius dnrant quam crudi; neque ob id tantum, qnod hnjusmodi coctio arceat pntredinem; sed etiam quod, emisso humore aqueo, humor oleosus diutius se sustineat.

10. Aqua omnium liqoorum citissime sorbetur ab aëre, olenm contra tardius evaporat; ut cernere est, non solnm in liquoribus ipsis, verum etiam in mixtis: etenim papyrus, aqua madefacta, atqne inde nonnibil diaphaneitatis nacta, paulo post albescit, et diaphaneitatem suam deponit, exhalante scilicet vapore aquæ; at contra, papyrus, oleo tincta, diu diaphaneitatem servat, minime exhalante oleo: unde qui chirographa adulterant, papyrum oleatam autographo imponunt: atqne hac industria lineas trahere tentant.

11. Gummi omnia valde diu durant; etiam cera, et mel.

12. At æqualitas et laæqualitas eorum, quæ corporibus accidunt, non minus quam res ipsæ, ad durationem aut dissolutioaem valent: nam ligna, lapides, alia, vel in aqua, vel in aëre perpetuo manentia, plus durant, quam si quandoque alluantur, quandoque afflentur. Atque lapides eruti, et in ædificiis positi, dintius durant, si eodem situ, et ad easdem cœli plagas ponantur, quibus jacebant In mioeris: id quod plantis etiam, e loco motis, et alio transplantatis, accidit.

OBSERVATIONES MAJORES.

(1.) Loco assumpti ponatur, qnod certissimum est; inesse omni tangibili spiritum sive corpus pneumaticum, partibus tangibilibus obtectum, et inclusum; atque ex illo spiritu initum capi omnis dissolutionis et consumptionis; itaqne earundem notitotum est detentio spiritus.

(2.) Spiritus detinetur dupliel modo; aut per compressionem arctam, tanquam in carcere; aut per detentionem, tanquam spontaneam. Atque ea mansio etiam duplici ratione iavitatur; videlicet, si spiritus ipse non sit mobilis admodum, aut acer; atque si insuper ab aëre ambiente minus solicitetur ad exeundum. Itaque duo sunt durabilia; durum, et oleosum; durum constringit spiritum; oleosum partim demulcet spiritum, partim bujusmodi est, ut ab aëre minus solicitetur: aër enim aquæ consubstantialis, flamma antem oleo. Atque de natura durabilis et minus durabilis in inanimatis, hæc inquisita sint.

Historia.

13. Herbæ, qnæ habentur ex frigidioribus, annuæ sunt, et quotannis moriuatur, tam radice quam canle: ut lactuca, portulaca; etiam triticum, et frumenti omne genus: sunt tamen etiam ex frigidis, quæ per tres aut quatnor annos durant, ut viola, fragaria, pimpinella, primula veris, acetosa; at borago, et buglossa, cum videantur vivæ tam similes, morte differunt; borago enim annua, buglossa anno superstes.

14. At herbæ calidæ plurimæ ætatem et annos ferunt; hyssopus, thymus, satureia, majorana altera, melissa, absynthium, chamædrys, salvia, etc. At fœaiculum caule moritur, radice repullulat: ocymum vero, et majorana (quam vocant) suavis, non tam ætatis quam biemis sunt impatientes; satæ enim in loco valde munito et tepido, superstites sunt: certe notum est schema (qnalibus in hortis utuntur ad ornamentum) ex hyssopo, quotannis bis tonsum, usque ad quadraginta annos durasse.

15. Frutices, et arbores humiliores, ad sexagesimum annum, alia etiam duplo magis, vivunt. Vitis sexagenaria esse potest, et ferax est etiam in senectute. Rosmarinus, feliciter collocatus, etiam sexagesimum annum complet: at acanthus et hedera ultra centesimum durant. Sed rubi ætas non percipitur, quia flectendo caput in terram novas nanciscitur radices, ut veterem a nova distinguere haud facile sit.

16. Ex arboribus grandioribus anaosissimæ sunt qnercus, ilex, ornus, ulmns, fagus, castanea, platanus, ficus ruminalis, lotos, oleaster, olea, palma, morus: ex his nononllæ usque ad octingentesimum annum; etiam earum miaus vivaces, usqne ad ducentesimum perveniunt.

17. At arbores odoratæ et resinosæ, materia sua sive ligno, etiam illis, quas diximus, magis durabiles; ætate paulo minus vivaces; eupressns, abies, pinus, buxus, juniperus; at cedrus, corporis magnitudine adjutus, etiam superiores fere æquat.

18. Fraxinus, proventu alacris et velox, ætatem ad centesimum anaum, aut nonnihil ultra producit; quod etiam quandoque facit ferula, et acer, et sorbus; at populus, et tilia, et salix, et (quam appellant) sycomorus, et juglans, noa adeo vivaces suat.

19. Malus, pyrus, prunus, malos Punica, malus Medica, et citria, mespilus, cornus, cerasus ad quinquagesimum nut sexagesimum aonum pervenire possunt; præsertim si a musco, nonnullas ipsarum vestiente, aliquando purgentur.

20. Generaliter magnitudo corporis in arboribus, cum diuturnitate vitæ (cæteris paribus) nonnihil habet commune; et similiter durities materiæ: quin et arbores glandiferæ, et nuciferæ, fructiferis et bac-

ciferis sunt plerumque vivaciores: atque etiam præcocibus, vel fructu, vel foliis, serotinæ et tardius frondescentes, atque tardius etiam folia deponentes, ætate diuturniores sunt: quin et sylvestres cultis; et in eadem specie, quæ acidum fructum ferunt, illis quæ dulcem.

OBSERVATIO MAJOR.

(3.) Bene admodum notavit Aristoteles discrimen inter plantas et animalia, quond alimentationem et renovationem; quod scilicet corpus animalium suis claustris circumseptum manet: atque insuper, postquam ad justam magnitudinem pervenerit, alimento continuatur et conservatur, sed nihil novum excrescit, præter capillos et ungues, quæ pro excrementis habentur; adeo ut necesse sit succos animalium citius veterascere: at in arboribus, quæ novos subinde ramos, nova vimina, novas frondes, novos fructus emittunt, evenit ut et ipsæ, quas diximus, partes novæ sint, nec ætatem passæ; cum vero quicquid viride sit et adolescens, fortius et alacrius alimentum ad se trahat, quam quod inceperit desiccari; evenit una et simul, ut truncus ipse, per quem hujusmodi alimentum transit ad ramos, uberiore et lætiore alimento in transitu irrigetur, perfundatur, et recreetur, id quod etiam insigniter patet ex hoc, (licet illud non annotaverit Aristoteles, qui nec ea ipsa, quæ jam diximus, tam perspicue explicavit,) quod in sepibus, sylvis cæduis, arboribus tonsis, amputatio ramorum aut surculorum caulem ipsum aut truncum confortat, illumque efficit longe diuturniorem.

DESICCATIO; DESICCATIONIS PROHIBITIO; ET DESICCATI INTENERATIO.

Ad Art. 2. Historia. 1. Ignis, et calor intensus, alia desiccat, alia colliquat;

"Limus ut hic duresci, et hæc ut cera liquescit,
Uno eodemque igne."

Desiccat terram, et lapides, et lignum, et pannos, et pelles, et quæcunque non fluunt: colliquat metalla, et ceram, et gummi, et butyrum, et sevum, et hujusmodi.

2. Attamen in illis ipsis, quæ colliquat ignis, si vehementior fuerit, ea in fine desiccat; nam et metalla, ex igne fortiore, emisso volatili, minuuntur pondere (præter aurum) et deveniunt magis fragilia; atque oleosa illa et pinguia ab igne fortiore deveniunt frixa, et tosta, et magis sicca, et crustata.

3. Aër, præcipue apertus, manifesto desiccat, nunquam colliquat; veluti cum viæ et superficies terræ, imbribus madefactæ, desiccantur; lintea lota, quæ ad aërem exponuntur, siccantur; herbæ, et folia, et flores in umbra siccantur. At multo magis hoc facit aër, si aut solis radiis illustretur (modo non inducat putredinem) aut moveatur; ut flantibus ventis, et in arcis perflatilibus.

4. Ætas maxime, sed tamen lentissime, desiccat; ut fit in omnibus corporibus, quæ vetustate (modo non intercipiantur a putredine) arefiunt: ætas autem nihil est per se (cum sit mensura tantum temporis) sed effectus producitur, a spiritu corporum innato, qui corporis humorem exsugit, et una cum ipso evolat; et ab aëre circumfuso, qui multiplicat se super spiritus innatos et succos corporis, eosque deprædatur.

5. Frigus omnium maxime proprie exsiccat; siquidem desiccatio non fit nisi per contractionem; quod est opus proprium frigoris. Quoniam vero nos homines calidum potentissimum habemus in igne; frigidum autem infirmum admodum; nihil aliud scilicet quam hiemis, aut fortasse glaciei, aut nivis, aut nitri; ideo desiccationes frigoris sunt imbecillæ et facile dissolubiles: videmus tamen desiccari faciem terræ ex gelu, atque ex ventis martiis, plus quam ex sole; cum idem ventus qui humorem lambit, etiam frigus incutiat.

6. Fumus foci desiccat, ut in laridis, et linguis boum, quæ in caminis suspenduntur: quinetiam suffitus ex olibano, aut ligno aloës, et similibus, desiccat cerebrum et catarrhis medetur.

7. Sal, mora paulo longiore, desiccat, non tantum in extimis, sed etiam in profundo; ut fit in carnibus, aut piscibus salitis; quæ per diuturnam salitionem manifesto etiam intrinsecus indurantur.

8. Gummi calidiora, applicata ad cutem, eam desiccant et corrugant; quod faciunt etiam aquæ nonnullæ constringentes.

9. Spiritus vini fortis in tantum desiccat instar ignis, ut et albumen ovi immissum candefaciat, et panem torreat.

10. Pulveres desiccant instar spongiarum, sugendo humidum, ut fit in pulvere atramento injecto post scriptionem: etiam levor, et unio corporis (qui non permittit vaporem humidi ingredi per poros) per accidens desiccat, quia ipsum aëri exponit; ut fit in gemmis, et speculis, et laminis ensium; in quæ si spires, cernuntur illa primo vapore obducta; sed paulo post evanescit ille vapor, ut nubecula. Atque de desiccatione hæc inquisita sint.

11. Granaria in usu sunt hodie, ad partes Germaniæ orientales, in cellis subterrancis, in quibus triticum et alia grana conservantur, substrato et circumposito undique stramine, ad nonnullam altitudinem, quod humiditatem cavernæ arceat et sorbeat: qua industria servantur grana etiam ad vicesimum, aut tricesimum annum: neque servantur tantum a putredine, sed (quod ad præsentem inquisitionem pertinet) in tali viriditate, ut panibus conficiendis optime sufficiant; idemque fuisse in usu in Cappadocia, et Thracia, et nonnullis locis Hispaniæ, perhibetur.

12. Granaria, in fastigiis ædium, cum fenestris ad orientem et septentrionem, commode collocantur; quinetiam constituunt quidam duo solaria, superius et inferius; superius autem foraminatum est, ut granum per foramen, (tanquam arena in clepsydra) continue descendat, et subinde palis, post aliquot dies, reponatur; ut granum sit in continuo motu. Notandum autem est, etiam hujusmodi res non tantum putredinem cohibere, verum etiam viriditatem conservare, et desiccationem retardare; cujus causa est ea, quam etiam superius notavimus; quod evolatio humoris aquei, quæ motu et vento accelcratur, humorem oleosum in suo esse conservat; qui alias in consortio humoris aquei fuisset una evolaturus. Etiam in quibusdam montibus, ubi aër est purus, cadavera ad plures dies manent non multum defloreseentia.

13. Fructus, veluti granata, citria, mala, pyra, et hujusmodi; etiam et flores, ut rosæ, lilium, in vasis fictilibus bene obturatis, diutius servantur; neque tamen non officit aër ambiens ab extimis, qui etiam per vas inæqualitates suas defert et insinuat; ut in calore et frigore manifestum est: itaque si et vasa diligenter obturentur, atque obturata sub terram insuper condantur, optimum erit; neque minus utile est, si non sub terra, sed sub aquis condantur, modo sint umbrosæ, ut patei et eisternæ in domibus; sed quæ sub aquis conduntur, melius reponuntur in vasis vitreis quam in fictilibus.

14. Generaliter quæ sub terra, et in cellis subterraneis, aut in profundo aquarum, reponuntur, virorem suum diutius tuentur, quam quæ supra terram.

15. Tradunt in conservatoriis nivium (sive sint in montibus in locis naturalibus, sive per artem in puteis ad hoc factis) observatum fuisse, quod aliquando malum, aut castanea, aut nux, aut simile quippiam inciderit, quæ post plures menses liquefacta nive, aut etiam intra nivam ipsam, inventa sunt recentia et pulchra, ac si pridie essent decerpta.

16. Uvæ apud rusticos servantur in racemis coopertis intra farinam; quod licet gustui eas reddat minus gratas, tamen humorem et viriditatem conservat: etiam omnes fructus duriores, non tantum in farina, sed in scobe lignorum, etiam inter acervos granorum integrorum, diu servantur.

17. Invaluit opinio, corpora intra liquores suæ speciei, tanquam menstrua sua, conservari recentia; ut uvas in vino, olivas in oleo, etc.

18. Servantur mala granata et cotonea, tincta paulisper in aquam marinam, aut salsam, et paulo post extracta, et in aëre aperto (modo fuerit in umbra) siccata.

19. In vino, oleo, aut amurca suspensa, diu servantur; multo magis in mellc, et spiritu vini; atque etiam omnium maxime (ut quidam tradunt) in argento vivo.

20. Incrustatio etiam fructuum cera, pice, gypso, pasta, aut aliis oblinimentis, aut capsulis, diutius eos virides conservat.

21. Manifestum est, muscas, et araneas, et formicas et hujusmodi, casu in electro, aut etiam arborum gummis, immersas et sepultas, nunquam postea marcescere; licet sint corpora mollia et tenera.

22. Uvæ servantur pensiles; et sic de aliis fructibus; duplex est enim ejus rei commoditas; una, quod absque ulla contusione aut compressione fiat, qualis contra fit cum super dura collocantur; altera, quod aër undequaque ipsas æqualiter ambit.

23. Notatum est, tam putrefactionem, quam desiccationem in vegetabilibus, non similiter, ex omni parte, incipere; sed maxime ex ea parte, per quam solebant, cum essent viva, attrahere alimentum; itaque jubent aliqui pediculos malorum aut fructuum cera aut pice, liquefacta, obducere.

24. Fila candelarum aut lampadum majora citius absumunt sevum aut oleum, quam minora; etiam flamma ex gossipo citius, quam ex scirpo, aut stramine, aut vimine ligneo; atque in baculis cereorum, citius ex junipero aut abiete, quam ex fraxino: etiam omnis flamma mota et vento agitata citius absumit, quam tranquilla; itaque intra cornu minus cito, quam in aperto: tradunt quoque lychna in sepulchris admodum diu durare.

25. Alimenti etiam natura et præparatio non minus facit ad diuturnitatem lychnorum, quam natura flammæ: nam cera sevo diuturnior est; et sævum paulo madidum, sevo sicciore; et cera dura, cera molliore.

26. Arbores, si quotannis circa radices earum terram moveris, brevius durant, si per lustra aut decennia, diutius; etiam germina et surculos decerpere, facit, ad longævitatem; item stercoratio aut substratio cretæ et similium, aut multa irrigatio, feracitati confert, ætatem minuit. Atque de prohibitione desiccationis et consumptionis hæc inquisita sunt.

Inteneratio desiccati (quæ res est præcipua) experimenta præbet pauca; ideoque nonnulla, quæ inanimalibus fiunt, atque etiam in homine, conjungemus.

27. Vimina salicis, quibus ad ligandas arbores utuntur, in aqua infusa, fiunt magis flexibilia; similiter virgarum ferulæ extremitates in urceis cum aqua imponuntur, ne siccescant; quin et globuli lusorii, licet per siccitatem rimas collegerint, positi in aqua rursus implentur et consolidantur.

28. Ocreæ ex corio, vetustate duræ et obstinatæ, per illinitionem sevi ad ignem molliuntur; etiam igni simplici admotæ, nonnihil: vesicæ et membranæ, postquam fuerint induratæ, ab aqua calefacta, admixto sevo aut aliquo pingui, intenerantur; melius autem, si etiam paululum confricentur.

29. Arbores veteres admodum, quæ diu steterunt immotæ, fodiendo et aperiendo terram circa radices ipsarum, manifesto tanquam juvenescunt, novis et teneris frondibus emissis.

30. Boves aratores veteres, et laboribus penitus exhausti, in læta pascua inducti, carnibus vestiuntur novis, et teneris, et juvenilibus, ut etiam ad gustum carnem juvencorum referant.

31. Diæta stricta consumens et emacians, ex guaiaco, pane bis cocto, et similibus, (quali ad curandum morbum Gallicum, et inveteratos catarrhos, et leucophlegmatiam utimur,) homines ad summam macilentiam deducit, consumptis succis corporis; qui postquam cœperint instaurari, et refici, manifesto cernuntur magis juveniles et virides; quinctiam existimamus morbos emaciantes, postea bene curatos, compluribus vitam prolongasse.

OBSERVATIONES MAJORES.

1. Miris modis homines, more noctuarum, in tenebris notionum suarum acute vident, ad experientiam, tanquam lucem diurnam, nictant et cæcutiunt. Loquuntur de elementari qualitate siccitatis; et de desiccantibus; et de naturalibus periodis corporum, per quas corrumpuntur et consumuntur; sed interim, nec de initiis, nec de mediis, nec de extremis desiccationis et consumptionis, aliquid, quod valeat, observant.

2. Desiccatio et consumptio, in processu suo, tribus actionibus perficitur; atque originem ducunt actiones illæ a spiritu innato corporum, ut dictum est.

3. Prima actio est, attenuatio humidi in spiritum; secunda est, exitus aut evolatio spiritus; tertia est, contractio partium corporis crassiorum, statim post

spiritum emissum; atque hoc ultimum est illa desiccatio et induratio de qua præcipue agimus: priora duo consumunt tantum.

4. De attenuatione, res manifesta est; spiritus enim, qui in omni corpore tangibili includitur, sui non obliviscitur; sed quicquid nanciscitur in corpore (in quo obsidetur) quod digerere possit, et conficere, et in se vertere; illud plane alterat et subigit; et ex eo se multiplicat, et novum spiritum generat. Hoc ex probatione ea, instar omnium, evincitur; quod quæ plurimum siccantur, pondere minuuntur, et deveniunt cava, porosa, et ab intus sonantia; certissimum autem est, spiritum rei præ-inexistentem ad pondus nihil conferre, sed illud levare potius; ergo necesse est, ut spiritus præ-inexistens humidum et succum corporis, quæ antea ponderaverant, in se verterit; quo facto pondus minuitur. Atque hæc est prima actio, scilicet attenuationis humoris, et conversionis ejus in spiritum.

5. Secunda actio, quæ est excitus, sive evolatio spiritus, res etiam manifestissima est. Etenim illa evolatio, cum fit confertim, etiam sensui patet; in vaporibus aspectui, in odoribus olfactui: verum si sensim fiat evolatio, ut fit per ætatem, tum demum peragitur sine sensu; sed eadem res est; quinetiam ubi corporis compages aut ita arcta est, aut ita tenax, ut spiritus poros et meatus non inveniat, per quos exeat, tum vero etiam partes ipsas crassiores corporis, in nixu suo exeundi, ante se agit, easque ultra corporis superficiem extrudit; ut fit in rubigine metallorum, et in carie omnium pinguium. Atque hæc est secunda actio, scilicet exitus et evolationis spiritus.

6. Tertia actio paulo magis obscura, sed æque certa est; ea est contractio partium crassiorum post spiritum emissum. Atque primo videre est corpora post spiritum emissum manifesto arctari, et minorem locum complere; ut fit in nucleis nucium, qui siccati non implent testam; et in trabibus, et palis ligni, quæ primo contiguæ sunt ad invicem, ex desiccatione autem hiant; atque ex globulis lusoriis, et similibus, qui per siccitatem rimosi evadunt; cum partes se contrahant, et contractæ necessario spatia inter se relinquant. Secundo patet ex rugis corporum siccatorum; nixus enim se contrahendi tantum valet, ut partes contrahendo interim adducat et sublevet; quæ enim in extremitatibus contrahuntur, in mediis sublevantur; atque hæc cernere est in papyris, et membranis vetustis; atque in cute animalium; atque in extimis casei mollioris; quæ omnia vetustate corrugantur. Atque tertio se ostendit amplius hæc contractio, in illis, quæ a calore non tantum corrugantur, verum etiam complicantur, et in se vertuntur, et quasi rotulantur; ut cernere est in membranis, et papyris, et foliis ad ignem admotis. Etenim contractio per ætatem, cum tardior sit, rugas fere parit; at contractio per ignem, quæ festina est, etiam complicationes. At in plurimis, ubi non datur corrugatio, aut complicatio; fit simplex contractio, et angustatio, et induratio, et desiccatio, ut primo positum est: quod si eousque invalescat evolatio spiritus et absumptio humidi, ut non relinquatur satis corporis ad se uniendum et contrahendum, tum vero cessat contractio ex necessitate, et corpus redditur putre, et nihil aliud quam pulvisculus cohærens, qui levi tactu dissipatur et abit in aërem; ut fit in corporibus cunctis valde absumptis, et papyro et linteo ad ultimum combustis; et cadaveribus imbalsamatis post plura secula. Atque hæc est tertia illa actio; scilicet contractionis partium crassiorum post spiritum emissum.

7. Notandum est ignem et calorem per accidens tantum desiccare; proprium enim eorum opus est, ut spiritum et humida attenuent et dilatent; sequitur autem ex accidente, ut partes reliquæ se contrahant; sive ob fugam vacui tantum, sive ob alium motum simul; de quo nunc non est sermo.

8. Certum est etiam putrefactionem, non minus quam arefactionem, a spiritu innato originem ducere, sed longe alia via incedere; nam in putrefactione spiritus non emittitur simpliciter, sed ex parte detentus mira comminiscitur; atque etiam partes crassiores non tam localiter contrahuntur, quam coëunt singulæ ad homogeniam.

LONGÆVITAS ET BREVITAS VITÆ IN ANIMALIBUS.

Ad Art. 3. Connexio.

De diuturnitate, et brevitate vitæ in animalibus tenuis est informatio, quæ haberi potest; observatio negligens; traditio fabulosa: in cicuribus vita degener corrumpit; in sylvestribus injuria cœli intercipit.

Neque quæ concomitantia videri possint, huic informationi multum auxiliantur (moles corporis; tempus gestationis in utero; numerus fœtus; tempus grandescendi; alia): propterea quod complicata sunt ista, atque alias concurrunt, alias disjunguntur.

Historia.

1. Hominis ævum cæterorum animalium omnium superat (quantum narratione aliqua certa constare potest) præter admodum paucorum. Atque concomitantia in eo satis æqualiter se habent; statura et magnitudo grandis; gestatio in utero novimestris; fœtus ut plurimum unicus; pubes ad annum decimum quartum: grandescentia ad vigesimum.

2. Elephas, fide haud dubia, curriculum humanæ vitæ ordinarium transcendit: gestatio autem in utero decennalis, fabulosa; biennalis, aut saltem supra annuam, certa: at moles ingens, et tempus grandescendi usque ad annum tricesimum; dentes robore firmissimo: neque etiam observationem hominum fugit, quod sanguis elephanti omnium sit frigidissimus: ætas autem ducentissimum annum nonnunquam complevit.

3. Leones vivaces habiti sunt, quod complures ex iis reperti sint edentuli; signo nonnihil fallaci, cum illud fieri possit ex gravitate anhelitus.

4. Ursus magnus dormitor est; animal pigrum, et iners, neque tamen vivacitatis notatum: illud autem signum brevis ævi, quod gestatio ejus in utero sit festina admodum, vix ad quadraginta dies.

5. Vulpi multa se bene habere videntur ad longævitatem; optime tecta est, carnivora, et degit in antris; neque tamen vivacitatis notata: certe est generis canini, quod genus brevioris est vitæ.

6. Camelus longævus est; animal macilentum, et nervosum; ita ut quinquaginta annos ordinario, centum quandoque compleat.

7. Equi vita mediocris, vix quadragesimum an-

num attingit: ordinarium autem curriculum viginti annorum est: sed hanc brevitatem vitæ fortasse homini debet; desunt enim jam nobis equi solis, qui in pascuis liberi et læti degebant. Attamen crescit equus usque ad sextum annum, et generat in senectute. Gestat etiam in utero equa diutius quam fœmina, et in gemellis rarior est. Asinus similis fere ævi ut equus; mulus utroque vivacior.

8. Cervorum vita celebratur vulgo ob longitudinem; neque tamen narratione aliqua certa: nescio quid de cervo torquato, cooperta torque ipsa pinguedine carnis, circumferunt. Eo minus credibilis est longævitas in cervo, quod quinto anno perficitur; atque non multo post cornua, (quæ annuatim decidunt et renovantur,) succedunt magis conjuncta fronte et minus ramosa.

9. Canis brevis est ævi; non extenditur ætas ultra annum vicesimum; neque sæpe attingit ad decimum quartum; animal ex calidissimis, atque inæqualiter vivena; eum, ut plurimum, aut vehementius moveat, aut dormiat. Etiam multiparum est, et novem septimanas gestat in utero.

10. Bos quoque, pro magnitudine et robore, admodum brevis est ævi, quasi sexdecim annorum; maresque fœminis nonnihil vivaciores: attamen unicum plerumque edit partum, et gestat in utero circa sex menses. Animal pigrum, et carnosum, et facile pinguescens, et herbis solis pastum.

11. At decennalis ætas in ovibus etiam rara est; licet sit animal mediocris magnitudinis, et optime tectum; atque, quod mirum, cum minimum in illis reperiatur bilis, capillitium habent omnium crispissimum; neque enim pilus alicujus animalis tam tortus est, quam lana. Arietes ante tertium annum non generant, atque habiles sunt ad generandum usque ad octavum; fœmellæ pariunt quamdin vivunt. Morbosum ovis animal, nec ætatis suæ curriculum fere implet.

12. Caper etiam similis est ævi cum ove, nec dispar multum in cæteris; licet sit animal magis agile, et carne paulo firmiore, eoque debuerit esse vivacius; attamen salacius est multo, eoque brevioris ævi.

13. Sues ad quindecim annos quandoque vivunt, etiam ad viginti; eumque sint carne, inter animalia omnia, humidissima, tamen nihil videtur hoc proficere ad longitudinem vitæ; de apro aut sue sylvestri, nil certi habetur.

14. Felis ætas est inter sextum annum et decimum; agile animal, et spiritu acri, cujus semen (ut refert Ælianus) fœmellam adurit; unde inerebuit opinio; quod felis concipit in dolore, et parit cum facilitate: vorax est in cibis, quos potius deglutit, quam mandit.

15. Lepores, et cuniculi vix ad septem annos perveniunt; animalia generativa, etiam superfœtantia; in hoc disparia, quod cuniculus sub terra vivit, lepus in aperto; quodque leporis carnes atriores sint.

16. Aves mole corporis quadrupedibus longe sunt minores: pusilla enim res est aquila aut cygnus, præ bove aut equo; item struthio præ elephanto.

17. Aves optime tectæ sunt: pluma enim tepore, et incubitu presso ad corpus, et lanam, et capillitia excedit.

18. Aves, cum plures pariant, eos simul in alvo non gestant, sed ova excludunt per vices: unde liberalius sufficit alimentum fœtui.

19. Aves parum aut nihil alimenta mandunt, ut integrum sæpe reperiatur in gulis ipsarum. Attamen frangunt fructuum nuces, et nucleum excerpunt. Existimantur autem esse concoctionis fortis et calidæ.

20. Motus avium, dum volant, mixtus est, inter motum artuum et gestationem; saluberrimum exercitationis genus.

21. De avium generatione Aristoteles bene notavit, (sed male ad alia animalia traduxit,) minus scilicet conferre semen maris ad generationem; sed activitatem potius indere, quam materiam; unde etiam ova fœcunda et sterilia, in plurimis non dignoscuntur.

22. Aves quasi omnes ad magnitudinem suam justam perveniunt primo anno, aut paulo post: verum est, quoad plumas in nonnullis, quoad rostrum in aliis, annos numerari; ad magnitudinem autem corporis, minime.

23. Aquila pro longæva habetur, anni non numerantur: etiam in signum trahitur longævitatis, quod rostra renovet, unde juvenescat; ex quo illud "Aquilæ senectus." Attamen res fortasse ita se habet; ut instauratio aquilæ non mutet rostrum, sed contra mutatio rostri instauret aquilam: postquam enim rostrum aduncitate sua nimium increverit, pascit aquila eum difficultate.

24. Vultures etiam longævi perhibentur, adeo ut vitam fere ad centesimum annum producant: milvi quoque, atque adeo omnes volucres carnivoræ et rapaces, diuturnioris sunt ævi. De accipitre autem, quia vitam degit degenerem et servilem, ex usu humano, minus certum fieri possit judicium circa periodum ejus vitæ naturalem. Attamen ex domesticis, deprehensus est accipiter aliquando ad annos triginta vixisse; ex sylvestribus, ad quadraginta.

25. Corvus traditur esse similiter longævus, aliquando centenarius; carnivora avis, neque admodum frequens in volatu; sed magis sedentaria, et carnibus admodum atris. At cornix, cætera (præterquam magnitudine, et voce) similis, paulo minus diu vivit, sed tamen habetur ex vivacibus.

26. Cygnus, pro certo, admodum longævus invenitur, et centesimum annum haud raro superat; avis optime plumata, ichthyophaga, et perpetuo in gestatione, idque in aquis currentibus.

27. Anser quoque ex longævis; licet herba et id genus pabulo nutriatur; maxime autem sylvestris; adeo ut in proverbium apud Germanos sit, "Magis senex quam anser nivalis."

28. Ciconiæ longævæ admodum esse deberent, si verum esset, quod antiquitus notatum fuit, eas Thebas nunquam accessisse, quia urbs illa sæpius capta esset: id si cavissent, aut plusquam unius seculi memoriam habebant, aut parentes pullos suos historiam edocebant: verum omnia fabellis plena.

29. Nam de phœnice tantum accrevit fabulæ, ut obruatur, si qua in ea re fuit veritas. Illud autem, quod admirationi erat, eum magno aliarum avium comitatu volantem semper visum, minus mirum; eum hoc etiam in ulula interdiu volante, aut psittaco e cavea emisso, ubique cernere detur.

30. Psittacus, pro certo, usque ad sexaginta annos cognitus est vivere apud nos, quotquot supra habuis-

set, cum huc esset transvectus. Avis cibi quasi omnigeni, atque etiam mandens cibos, atque mutans subinde rostrum: aspera, et ferocula, carnibus atris.

31. Pavo ad viginti annos vivit: oculos autem Argus non recipit ante trimatum: tardigrada avis, carnibus vero candidis.

32. Gallus gallinaceus, salax, pugnax, et brevis ævi: alacris admodum ales, et carnibus etiam albis.

33. Gallus Indicus, aut Turcicus (quem vocant) gallinacei ævum parum superat; iracundus ales, et carnibus valde albis.

34. Palumbes sunt ex vivacioribus, ut quinquagesimum annum aliquando compleant, aërius ales, et in alto et nidificans et sedens. Columbæ vero ac turtures, vita breves, usque ad annum octavum.

35. At phasiani et perdices etiam decimum sextum annum implere possunt. Aves numerosi fœtus, carnibus autem paulo obscurioribus, quam pullorum genus.

36. Fertur de merula, quod sit ex avibus minoribus maxime longæva; procax certe avis, et vocalis.

37. Passer notatur esse ævi brevissimi; id quod ad salacitatem refertur in maribus: at carduelis, corpore haud major, deprehensus est vivere ad annos viginti.

38. De struthionibus nihil certi habemus; qui domi nutriuntur, adeo infelices fuerunt, ut non deprehensi sint diu vivere: de ave ibi constat tantum quod sit longæva, anni non numerantur.

39. Piscium vita magis incerta est, quam terrestrium, cum sub aquis degentes minus observentur: non respirant ex ipsis plurimi; unde spiritus vitalis magis conclusus est; itaque licet refrigerium excipiant per branchias, haud tamen ita continua fit refrigeratio, quam per anhelitum.

40. In aquis cum degant, a desiccatione illa et deprædatione, quæ fit per aërem ambientem, immunes sunt; neque tamen dubium est, quin aqua ambiens, atque intra poros corporis penetrans et recepta, plus noceat ad vitam quam aër.

41. Sanguinis perhibentur esse minus tepidi; suntque nonnulli ipsorum voracissimi, etiam speciei propriæ; caro autem ipsorum mollior est, quam terrestrium, et minus tenax: attamen pinguescunt majorem in modum, ut ex balænis infinita extrahatur quantitas olei.

42. Delphini traduntur vivere annos circa triginta; capto experimento in aliquibus a cauda præcisa: grandescunt autem ad annos decem.

43. Mirum est, quod referunt de piscibus, quod ætate, post annos nonnullos, plurimum attenuantur corpore, manente cauda, et capite, in magnitudine priore.

44. Deprehensæ sunt aliquando in piscinis Cæsarianis murænæ vixisse ad annum sexagesimum. Certe redditæ sunt longo usu tam familiares, ut Crassus orator unam ex illis defleverit.

45. Lucius ex piscibus aquæ dulcis longissime vivere reperitur; ad annum quandoque quadragesimum; piscis vorax, et carnibus siccioribus et firmioribus.

46. At carpio, abramus, tinca, anguilla, et hujusmodi, non putantur vivere ultra annos decem.

47. Salmones cito grandescunt, brevi vivunt; quod etiam faciunt trutæ; at perca tarde crescit, et vivit diutius.

48. Vasta illa moles balænarum et orcarum, quamdiu spiritu regatur, nil certi habemus; neque etiam de phocis, aut porcis marinis, et aliis piscibus innumeris.

49. Crocodili perhibentur esse admodum vivaces, atque grandescendi periodum itidem habere insignem; adeo ut hos solos ex animalibus perpetuo, dum vivunt, grandescere opinio sit. Animal est oviparum, vorax et sævum, et optime tectum contra aquas. At de reliquo testaceo genere nihil certi, quod ad vitam ipsorum attinet, reperimus.

OBSERVATIONES MAJORES.

Normam aliquam longævitatis et brevitatis vitæ in animalibus invenire difficile est, propter observationum negligentiam et causarum complicationem; pauca notabimus.

1. Inveniuntur plures ex avibus longævæ, quam ex quadrupedibus, (sicut aquila, vultur, milvus, pelicanus, corvus, cornix, cygnus, anser, ciconia, grus, ibis, psittacus, palumbes, etc.) licet intra annum perficiantur, et minoris sint molis. Tegumentum certe ipsarum avium contra intemperies cœli optimum est: cumque in aëre libero plerumque degant, similes sunt habitatoribus montium puriorum, qui longævi sunt. Etiam motus ipsarum, qui (ut alibi dictum est) mixtus est ex gestatione atque motu artuum, minus fatigat aut conculit, et magis salubris est: neque in utero matrum compressionem aut penuriam alimenti patiuntur initia volatilium; quia ova per vices excluduntur: maxime vero omnium illud in causa esse arbitramur; quod fiant aves magis ex substantia matris, quam patris; unde spiritum nanciscuntur minus acrem et incensum.

2. Poni possit, animalia, quæ creantur magis ex substantia matris quam patris, esse longæviora; quemadmodum aves, ut dictum est: etiam, quæ longiore tempore gestantur in alvo, plus habere ex substantia matris, minus e semine patris; ac proinde diuturnioris ævi esse: adeo ut existimemus etiam inter homines (quod in aliquibus notavimus) eos, qui similiores sunt matribus, diutius vivere; nec non liberos senum, qui ex uxoribus adolescentulis progignuntur, modo fuerint patres sani et non morbidi.

3. Initia rerum et injuriæ et auxilio maxime subjiciuntur: itaque minorem compressionem et liberaliorem alimentationem fœtus in utero ad longævitatem multum conferre par est: id fit, aut cum exeunt fœtus per vices, ut in avibus; aut cum pariuntur unici, ut in animalibus uni paris.

4. At tempus longius gestationis in utero tripliciter facit ad longitudinem vitæ. Primo, quod plus habet fœtus ex substantia matris, ut dictum est; deinde, quod prodit confirmatior; postremo, quod aëris vim prædatoriam tardius experitur. Quinetiam denotat periodos ipsius naturæ, per majores fieri circulos. Atque licet et boves et oves, qui in utero manent circiter sex menses, brevioris sint ævi, tamen id ex aliis causis ortum habet.

5. Comestores graminis et herbæ simplicis, brevis sunt ævi; longioris autem animalia carnivora, aut etiam seminum et fructuum comestores, sicut aves:

nam etiam cervi, qui longævi sunt, quasi dimidium pabuli (ut vulgo loquuntur) supra caput petunt; anser autem, præter gramen, etiam aliquid invenit ex aquis, quod juvet.

6. Integumentum corporis ad longævitatem multum conferre arbitramur: aëris enim inæqualitates (quæ miris modis corpus labefactant et subruunt) propulsat et longius arcet; id quod in avibus præcipue viget: at quod oves, licet bene tectæ sint, parum vivant: id morbis (qui illud animal obsident) atque simplici esui graminis, imputandum est.

7. Spirituum sedes principalis proculdubio est in capite; atque licet ad animales spiritus tantum, hoc vulgo referatur, tamen illud ipsum ad omnia pertinet: neque illud dubium, quod spiritus maxime corpus lambunt et consumunt; adeo ut aut major copia ipsorum aut major incensio et acrimonia, plurimum vitam abbreviet: itaque existimamus magnam causam longævitatis in avibus esse, quod pro mole corporis capita habeant tam minuta; adeo ut etiam homines, qui valde magnum habent cranium, minus diu vivere existimemus.

8. Gestationem (ut prius notavimus) omne aliud genus motus ad longitudinem vitæ superare arbitramur; gestantur autem aves aquatiles, ut cygnus; atque aves omnes in volatu, sed cum artuum motu subinde contentiore; et pisces, de quorum vitæ longitudine parum certi sumus.

9. Quæ longiore tempore perficiuntur (non loquendo de grandescentia sola, sed de aliis gradibus ad maturitatem; sicut homo primo emittit dentes, deinde pubem, deinde barbam, etc.); longæviora sunt; indicat enim periodos confici per majores circulos.

10. Animalia mitiora longæva non sunt, ut ovis, columba; bilis enim complurium functionum in corpore veluti cos est et stimulus.

11. Animalia, quorum carnes sunt paulo atriores, longioris sunt vitæ, quam quæ carnibus sunt candidis; indicat enim succum corporis magis firmum et minus dissipabilem.

12. In omni corruptibili quantitas ipsa multum facit ad conservationem integri; etenim ignis magnus longiore tempore extinguitur; aquæ portio parva citius evaporat; truncus non tam cito areseit, quam vimen; itaque generaliter, (in speciebus dico, non in individuis,) quæ mole grandiora sunt animalia, pusillis sunt longæviora; nisi aliqua alia causa potens rem impediat.

ALIMENTATIO ET VIA ALIMENTANDI.

Ad Art. 4. Historia.

1. Alimentum erga alimentatum debet esse naturæ inferioris, et simplicioris substantiæ: plantæ ex terra et aqua nutriuntur; animalia ex plantis; homines ex animalibus: sunt et animalia carnivora, atque homo ipse plantas sumit in partem alimenti; homo vero et carnivora animalia ex plantis solis ægre nutriuntur; possunt fortasse ex fructibus, et seminibus igne coctis, multo usu nutriri, sed foliis plantarum aut herbarum minime; ut ordo Foliatanorum experimento comprobavit.

2. At nimia proximitas aut consubstantialitas alimenti erga alimentatum non succedit: etenim animalia, quæ herbis vescuntur, carnes non tangunt; etiam ex carnivoris animalibus pauca carnes propriæ speciei sapiunt: homines vero, qui anthropophagi fuerunt, ordinario tamen humanis carnibus non vescebantur; sed aut ex ultione in inimicos, aut pravis consuetudinibus in illud desiderium lapsi sunt: at arvum grano ex ipso proveniente feliciter non seritur; neque in insitione surculus aut virgultum in proprium truncum immitti solet.

3. Quo alimentum melius est præparatum, et paulo propius accedit ad substantiam alimentati, eo et plantæ feraciores sunt, et animalia habitu sunt pinguiora; neque enim virgultum aut surculus, et terram immissus, tam bene pascitur, quam si idem immittatur in truncum, cum natura sua bene consentientem, ubi invenit alimentum digestum et præparatum; neque etiam (ut tradunt) semen cepæ, aut similium, in terram immissum, tam magnam producit plantam, quam si semen in aliam cepam indatur, insitione quadam in radicem et subterraneæ: quinetiam nuper inventum est, virgulta arborum sylvestrium, veluti ulmi, quercus, fraxini, et similium, in truncos insita, longe majora proferre folia, quam quæ sine insitione proveninnt: etiam homines carnibus crudis non tam bene pascuntur, quam ignem passis.

4. Animalia per os nutriuntur; plantæ per radices; fœtus animalium in utero per umbilicum; aves ad parum temporis ex vitellis ovorum suorum; quorum nonnulla pars, etiam postquam exclusæ sunt, in gulis earum inveniur.

5. Omne alimentum movet maxime a centro ad circumferentiam, sive ab intra ad extra; attamen notandum est, arbores et plantas potius per cortices et extima, quam per medullas et intima, nutriri; etenim si circumcirca decorticatæ fuerint, licet ad spatium parvum, non vivunt amplius: atque sanguis in venis animalium non minus carnes sub illis sitas nutrit, quam supra illas.

6. In omni alimentatione duplex est actio, extrusio et attractio; quarum prima a functione interiore, altera ab exteriore procedit.

7. Vegetabilia assimilant alimenta sua simpliciter, absque excretione: etenim gummi et lacrymæ potius exuberantiæ, quam excretiones, sunt: tubcres autem morbi potius; at animalium substantia magis sui similis est perceptiva; itaque cum fastidio conjuncta est, et inutilia rejicit, utilia assimilat.

8. Mirum est de pediculis fructuum; quod omne alimentum, quod tantos quandoque producit fructus, per tam angusta collula transire cogitur; fructus enim nunquam trunco inhæret, absque pediculo aliquo.

9. Notandum semina animalium nutritionem non excipere, nisi recentia; at semina plantarum manent alimentabilia ad longum tempus: attamen virgulta non germinant, nisi indantur recentia; neque radices ipsæ longius vegetant, nisi sint terra co-opertæ.

10. In animalibus gradus sunt nutrimenti pro ætate; fœtui in utero sufficit succus maternus; a nativitate lac; postea cibi et potus; atque sub senectute crassiores fere cibi et sapidiores placent.

Præcipue omnium ad inquisitionem præsentem facit, diligenter et attente indagare; utrum non possit fieri nutritio ab extra; aut saltem non per os? Certe balnea Mandatum.

ex lacte exhibentur in marasmis et emaciationibus; neque desunt ex medicis, qui existimant alimentationem nonnullam fieri posse per clysteria: omnino huic rei incumbendum; si enim nutritio fieri possit, aut per extra, aut alias quam per stomachum, tum vero debilitas concoctionis, quæ ingruit in senibus, illis auxiliis compensari possit, et tanquam in integrum restitui.

LONGÆVITAS ET BREVITAS VITÆ IN HOMINE.

Ad Art. 5, 6, 7, 8, 9, et 11. Historia.

1. Ante diluvium plura centenaria annorum vixisse homines refert Sacra Scriptura: nemo tamen patrum millesimum annum complevit. Neque hæc vitæ diuturnitas gratiæ, aut lineæ sanctæ, attribui possit; eum recenseantur ante diluvium patrum generationes undecim; at filiorum Adami per Cain tantum generationes octo; ut progenies Cain etiam longævior videri possit. Ista vero longævitas, immediate post diluvium, dimidio corruit; sed in postnatis; nam Noah, qui ante natus erat, majorum ætatem æquavit; et Sem ad sexcentesimum annum pervenit. Deinde, post tres generationes a diluvio, vita hominum ad quartam quasi partem ætatis primitivæ reducta est; videlicet, ad annos circiter ducentos.

2. Abraham annos centum septuaginta quinque vixit; vir magnanimus, et cui cuncta cedebant prospere. Isaac autem ad annum centesimum et octogesimum pervenit; vir castus et vitæ quietioris. At Jacob, post multas ærumnas, et numerosam sobolem, ad annum centesimum quadragesimum septimum duravit: vir patiens, et lenis, et astutus. Ishmael autem, vir militaris, annos centum triginta septem vixit. At Sarah (cujus unicæ ex fœminis anni recensentur) mortua est anno ætatis suæ centesimo vicesimo septimo; mulier decora et magnanima, optima mater et uxor; neque tamen minus libertate, quam obsequio erga maritum, clara. Joseph etiam, vir prudens et politicus, in adolescentia afflictus, postea in magna felicitate ætatem transigens, ad annos centum et decem vixit. Levi autem frater ejus, natu major, centesimum tricesimum septimum annum complevit; vir contumeliæ impatiens et vindicativus: eandemque fere ætatem attigit filius Levi; itemque nepos ejus, pater Aaronis et Mosis.

3. Moses centum viginti annos vixit; vir animosus, et tamen mitissimus, lingua autem impeditus: ipse vero Moses in psalmo suo vitam hominis pronunciavit annorum tantum septuaginta, et si quis robustior fuerit, octoginta esse; quæ certe mensura vitæ usque ad hodiernum diem maxima ex parte durat. Aaron autem, tribus annis senior, eodem cum fratre anno mortuus est; vir lingua promptior, moribus facilior, et minus constans. At Phinehas, Aaronis nepos, (ex gratia fortasse extraordinaria,) ad trecentesimum annum vixisse colligitur; si modo bellum Israëlitarum contra tribum Benjamin (in qua expeditione Phinehas consultus est) eadem serie temporum gestum sit, qua res in historia narratur; vir erat omnium maxime zelotes. Joshua autem, vir militaris et dux egregius, et perpetuo florens, ad annum centesimum et decimum vixit: cui Caleb fuit contemporaneus, et videtur fuisse æquævus: Ehud autem judex, etiam centenarius ad minimum fuisse videtur, cum post devictos Moabitas octoginta annos sub ejus regimine Terra Sancta quievisset; vir acer et intrepidus, quique pro populo se quodammodo devovisset.

4. Job, post instaurationem felicitatis suæ, annos centum et quadraginta vixit, cum ante afflictiones suas eorum annorum fuisset, qui filios habuerit ætatis virilis; vir politicus, et eloquens, et energetes, et exemplum patientiæ. Eli sacerdos vixit annos nonaginta octo; vir corpore obesus, animo placidus, et indulgens in suos. Elizæus autem propheta videtur mortuus esse centenario major; eum reperiatur vixisse post assumptionem Eliæ annos sexaginta; tempore vero assumptionis talis fuerit, ut pueri eum tanquam vetulum calvum subsannaverint: vir vehemens et severus, et austeræ vitæ, et contemptor divitiarum. Isaias etiam propheta videtur esse centenarius; nam prophetiæ munus exercuisse septuaginta annos reperitur; annis, tum quo cœpisset prophetizare, tum quo mortuus esset, ineertis: vir admirabilis eloquentiæ, et propheta evangelizans, promissis Dei Testamenti novi (tanquam uter musto) plenus.

5. Tobias senior annos centum quinquaginta octo; junior centum viginti septem, vixerunt: viri misericordes et eleemosynarii. Videntur etiam tempore captivitatis complures ex Judæis, qui e Babylone reversi sunt, longævi fuisse; cum utriusque templi (interjecto annorum septuaginta spatio) dicantur meminisse, et disparitatem ipsorum deplorasse. Postea defluxis seculis compluribus, tempore Servatoris, Simeon invenitur nonagenarius: vir religiosus, et spei et expectationis plenus. Et eodem tempore Anna prophetissa ultra centenarium vixisse manifesto deprehenditur; cum septem annis nupta fuisset; vidua autem per annos octoginta quatuor, quibus addendi sunt anni virginitatis, et qui prophetiam ejus de Servatore insecuti sunt: mulier sancta, et vitam degens in orationibus et jejuniis.

6. Longævitates hominum, qui apud ethnicos auctores inveniuntur, parum certæ memoriæ sunt; tum propter fabulas, in quas hujusmodi narrationes proclives admodum sunt; tum propter fallaciam in calculationibus annorum. Certe de Ægyptiis nil magni refertur in his, quæ extant, quoad longævitatem; cum reges ipsorum, qui longissime regnarunt, quinquagesimum aut quinquagesimum quintum annum non excesserint; quod pro nihilo est; cum etiam temporibus modernis hujusmodi spatia nonnunquam compleantur. At Arcadum regibus vitæ longissimæ fabulose tribuuntur: regio certe illa montana, et pastoralis, et victus incorrupti; attamen cum sub Pane tanquam deo tutelari fuerit, videntur etiam omnia, quæ ad eam pertinent, fuisse tanquam Panica, et vana, et ad fabulas idonea.

7. Numa Romanorum rex octogenarius fuit; vir pacificus et speculativus, et religioni addictus. M. Valerius Corvinus centum annos implevit, interjectis inter primum et sextum consulatum annis quadraginta sex; vir bello et animis fortissimus, ingenio civilis et popularis, et fortuna perpetuo florens.

8. Solon Atheniensis legislato, et unus ex Septem, supra annos octoginta vixit; vir magnanimus, sed

popularis et amans patriæ; item eruditus, et non alienus a voluptatibus et vita teneriore. Epimenides Cretensis centum quinquaginta septem annos vixisse traditur; mixta res eum portento, quia quinquaginta septem ipsorum sub antro eum delituisse ferunt. At dimidio seculi post, Xenophanes Colophonius annos centum et duos, aut etiam diutius vixit; utpote qui vigiuti quinque annos natus patriam reliquit, septuaginta septem totos annos est peregrinatus, ac postea rediit; sed quamdiu a redito vixerit, non constat: vir non magis itineribus quam mente oberrans; utpote cujus nomen, propter opiniones, a Xenophane in Xenomanem traductum est; vasti proculdubio conceptus, et nihil spirans nisi infinitum.

9. Anacreon poëta major octogenario fuit; homo lascivus, et voluptarius, et bibax. Pindarus Thebanus octogesimum annum complevit; poëta sublimis, cum quadam novitate ingenii, et multus in cultu deorum. Sophocles Atheniensis similem ætatem complevit; poëta grandiloquus, totus in scribendo, et familiæ negligens.

10. Artaxerxes Persarum rex annos nonaginta quatuor vixit; vir hebetioris ingenii, neque curarum magnarum patiens, amans gloriæ, sed otii magis. Eodem tempore Agesilaus rex Spartanus octoginta quatuor annos implevit; vir moderatus, ut inter reges philosophus; sed nihilominus ambitiosus et bellator, et tam militia, quam rebus gerendis, strennus.

11. Gorgias Leontinus annos centum et octo vixit; vir rhetor, et prudentiæ suæ osteotator, et qui adolescentes mercede accepta ot institueret, multum peregrinator fuit, et paulo ante mortem, nihil se habere quod senectutem incusaret, dixit. Protagoras Abderites nonaginta annos vixit: iste similiter rhetor fuit, sed non tam encyclopædia usus, quam civiles res, et instructionem ad rempublicam tractandam docere professus; attamen circumcursator civitatum æque ac Gorgias. At Isocrates Atheniensis nonagesimum octavum annum complevit; rhetor item, sed vir valde modestus, et lucem forensem fugiens, atque domi tantum scholam speriens. Democritus Abderites ad annos centum et novem ætatem produxit; magnus philosophus, et, si quis alius ex Græcis, vere physicus; regionum complurium, et multo magis naturæ ipsius, perambulator; sedulus quoque experimentator, et (quod Aristoteles ei objicit) similitudinem potius sectator, quam disputationum leges servans. Diogenes Sinopeus ad nonaginta annos vixit; vir erga alios liber, in se imperiosus; victu sordido et patientia gaudens. Zeno Cittieus centenarios, duobus tantum demptis annis, fuit; vir animo excelso, et opinionum contemptor, magni itidem acuminis, neque tamen molesti, sed quod animos magis experet, quam constringeret; quale etiam postea fuit in Seneca. Plato Atheniensis annum octogesimom primum implevit; vir magnanimus, sed tamen quietis amantior, contemplatione sublimis et imaginativus, moribus urbanus et elegans; attamen magis placidus quam hilaris: et majestatem quandam præ se ferens. Theophrastus Eresius annum octogesimum quintum complevit; vir duleis eloquio, duleis etiam rerum varietate; quique ex philosophia suavia tantum decerpserit, molesta et amara non attigerit. Carneades Cyrenæus, multis postea annis, ad octogesimum quintum ætatis annum similiter pervenit; vir eloquentiæ profluentis, quique grata et amœna cognitionis varietate et se ipsum, et alios delectaret. At Ciceronis tempore Orbilius, non philosophus, aut rhetor, sed grammaticus, ad centesimum fere annum vixit; primo miles, deinde ludimagister; vir natura acerbus et lingua et calamo, et versus discipulos etiam plagosus.

12. Q. Fabius Maximus sexaginta tribus annis augur fuit; unde constat eum octogenario majorem occuboisse; licet verum sit in auguratu nobilitatem magis spectari solitam, quam ætatem: vir prudens et cunctator, et in omnibus vitæ partibus moderatus, et cum comitate severus. Masinissa rex Numidarum nonagesimum annum superavit, et filium genuit post octogesimum quintum; vir acer, et fortunæ fidens, et juventute multas rerum vicissitudines expertus, deinrsu ætatis constanter felix. At M. Porcius Cato ultra annum nonagesimum vixit; vir ferrei prope corporis et animi; linguæ acerbæ, et simultates amans; idem agriculturæ deditus, si bique et familiæ suæ medicus.

13. Terentia Ciceronis uxor ad annum centesimum tertium vixit; mulier multis ærumnis conflictata, primo exilio mariti, deinde dissidio, et rursus calamitate ejus extrema; etiam podagra sæpius vexata. Lucein annum centenariom haud parum superavit; cum dicatur centum annis totis in scena mimam agens pronuntiasse; puellæ fortasse primo partes suscipiens, postremo anns decrepitæ. At Galeria Copiola, mima etiam et saltria, pro tyrocinio suo producta est in scenam, quoto anno ætatis incertum est; verum post annos nonaginta novem ab ea productione rursus reducta est in scenam, non jam pro mima, sed pro miraculo, in dedicatione theatri a Pompeio Magno; neque hic finis, cum etiam in ludis votivis pro salute divi Augusti iterom monstrata sit in scena.

14. Fuit et alia mima ætate paulo inferior, dignitate sublimior, quæ ad nonagesimum annum ætatem fere produxit; Livia Julia Augusta, Cæsaris Augusti uxor, Tiberii mater. Etenim si fabula fuit vita Augusti (id quod ipse voloit, cum decumbens amicis præcepisset, ut postquam expirarit, sibi *Plaudite* exhiberent) certe et Livia optima mima fuit; quæ cum marito obsequio, cum filio potestate quadam et prædominantia, tam bene congrueret. Mulier comis, et tamen matronalis, negotiosa, et potestatis tenax. At Junia C. Cassii uxor, M. Bruti soror, etiam nonagenaria fuit; cum post aciem Philippensem sexaginta quatuor annos vixisset. Mulier magnanima, opibus felix, calamitate mariti et proximorum, et longa viduitate mœsta, sed tamen honorata.

15. Memorabilis est annus Domini septuagesimus sextus, tempore imperatoris Vespasiani; quo reperiuntur longævitatis tanquam fasti; eo enim anno peractus est census (census autem de ætatibus auctoritatem et informationem habet fidissimam); atque in ea parte Italiæ, quæ jacet inter Apenninum et Padum, inventi sunt homines, qui annum centesimum æquarunt et superarunt, centum et viginti quatuor; videlicet annorum centum, homines quinquaginta quatuor; annorum centum et decem, homines quinquaginta septem; annorum centum et viginti quinque,

homines duo; annorum centum et triginta, homines quatuor; annorum centum et triginta quinque aut triginta septem, homines item quatuor; annorum centum et quadraginta, homines tres. Præter hos, specialim Parma edidit quinque, quorum tres, centum viginti annos, duo, centum triginta compleverunt; Bruxella unum annorum centum viginti quinque; Placentia unum annorum centum triginta unius; Faventia unam mulierem annorum centum tringinta duorum; oppidum quoddam (tunc dictum Velleiacium) in collibus circa Placentiam decem dedit; quorum sex, annum ætatis centesimum decimum, quatuor, centesimum vicesimum compleverunt; Ariminum, denique, unum centum et quinquaginta annorum, nomine M. Aponium.

Monitum. Ne res in longum procederet, visum est tam in illis, quos jam recensuimus, quam in his, quos mox recensebimus, nullam adducere octogenario minorem: apposuimus autem singulis characterem sive elogium verum et perbreve; at ejusmodi, quod judicio nostro nonnullam habeat ad longævitatem (quæ moribus et fortuna non parum regitur) relationem; sed dupliei modo: aut quod tales longævi esse plerunque soleant, aut quod tales, licet minus apte dispositi, tamen longævi esse aliquando possint.

16. Inter imperatores Romanos et Græcos, item Francos et Germanos, usque ad nostram ætatem, qui numerum prope ducentorum principum complerunt, quatuor tantum inventi sunt octogenarii; quibus addere liceat imperatores duos primos, Augustum et Tiberium; quorum hic septuagesimum octavum, ille septuagesimum sextum annum implevit; et ad octogesimum forte pervenire uterque potuisset, si placuisset Liviæ et Caio. Augustus (ut dictum est) annos vixit septuaginta sex; vir moderatus ingenio; idem ad res perficiendas vehemens, cætera placidus et serenus, cibo et potu sobrius, venere intemperantior, per omnia felix; quique anno ætatis tricesimo gravem et periculosum passus est morbum, adeo ut salus ejus pro desperata esset: quem Antonius Musa medicus, cum cæteri medici calida medicamenta, tanquam morbo convenientia, adhibuissent, contraria ratione frigidis curavit; quod fortasse ei ad diuturnitatem vitæ profuit. Tiberius duos amplius annos vixit; vir lentis maxillis, (ut Augustus aiebat,) sermone scilicet tardus, sed validus; sanguinarius, bibax, quique libidinem etiam in diætam transtulit; attamen valetudinis suæ curator probus, ut qui solitus esset dicere, stultum esse, qui post triginta annorum vitam medicum consuleret aut advocaret. Gordianus senior octoginta annos vixit, et tamen violenta morte periit, postquam vix degustasset imperium; vir magnanimus et splendidus, eruditus et poëta, et constanti vitæ tenore (ante ipsum obitum) felix. Valerianus imperator septuaginta sex annos vixit, antequam a Sapore rege Persarum captus esset; post captivitatem autem septem annos vixit inter contumelias, etiam violenta morte præreptus; vir mediocris animi, nec strenuus; existimatione tamen paulo eminentior et evectus, experimento minor. Anastasius cognomine Dicorus octoginta octo annos vixit; homo animi sedati, sed humilior, et superstitiosus, et timidus. Anicius Justinianus annos octoginta tres vixit; vir gloriæ appetens, persona propria socors, ducum suorum virtute felix et celebris; uxorius, neque suus, sed aliorum ductu circumactus. Helena Britanna, Constantini Magni mater, octogenaria fuit; mulier civilibus rebus minus se immiscens, nec mariti nec filii imperio, sed tota religioni dedita; magnanima et semper florens. Theodora imperatrix (quæ Zoes soror erat, Monomachi uxoria; ipsa autem post obitum ejus sola regnavit) annos supra octoginta vixit; mulier negotiosa, et imperio delectata, felix admodum, et ex felicitate credula.

17. Jam a secularibus ad principes viros in ecclesia narrationem convertemus. S. Johannes Apostolus Servatoris et discipulus amatus, nonaginta tres annos vixit; vere aquilæ emblemate notatus, nihil spirans nisi divinum, et tanquam Seraph inter Apostolos propter fervorem charitatis. S. Lucas evangelista octoginta quatuor annos complevit; vir eloquens et peregrinator, S. Pauli comes individuus, et medicus. Symeon Cleophæ, frater Domini dictus, episcopus Hierosolymitanus, annos centum et viginti vixit: licet martyrio præreptus fuerit; vir animosus, et constans, et bonorum operum plenus. Polycarpus Apostolorum discipulus, Smyrnensis episcopus, videtur ad centum annos et amplius ætatem produxisse; licet martyrio intercceptus; vir excelsi animi et heroicæ patientiæ, et laboribus indefessus. Dionysius Areopagita, Paulo Apostolo contemporaneus, ad nonaginta annos vixisse videtur; Volneris cœli appellatus ob theologiam sublimem; neque minus factis quam meditationibus insignis. Aquila et Priscilla, Pauli Apostoli primo hospites, deinde coadjutores, conjugio felici et celebri ad centum ad minimum annos vixerunt; cum sub Xysto primo superstites fuerint: nobile par, et in omnem charitatem effusum; quibus inter maximas consolationes (quales proculdubio primos illos ecclesiæ fundatores sequebantur) etiam illud conjugalis consortii tanquam magnus cumulus accesserat. S. Paulus Eremita annos centum et tredecim vixit; vixit autem in spelunca victu tam simplici et duro, ut eo vitam tolerare supra humanas vires videri possit; in meditationibus et soliloquiis tantummodo ævum transigens; qui tamen non illiteratus aut idiota, sed eruditus fuit. S. Antonius, Cœnobitarum primus institutor, aut (ut alii volunt) restitutor, ad centesimum quintum annum pervenit: vir devotus et contemplativus, et tamen civilibus rebus utilis; vitæ genere austero et aspero; attamen in gloriosa quadam solitudine degens, nec sine imperio; cum et monachos suos sub se habuisset, atque insuper a compluribus et Christianis et philosophis, veluti vivum aliquod simulacrum, non sine adoratione quadam visitatus esset. S. Athanasius mortuus est octogenario major; vir invincibilis constantiæ, famæ semper imperans, nec fortunæ succumbens; idem erga potentiores liber, erga populum gratiosus et acceptus; exercitatus contentionibus, in iisque et animosus et solers. S. Hieronymus plurimorum consensu annum nonagesimum superavit; vir calamo potens, et virilis eloquentiæ; varie eruditus, et linguis, et scientiis; peregrinator item, atque vitæ

versus senium austerioris; sed in vita privata spiritus gerens altos, et late fulgens ex obscuro.

18. At papæ Romani numerantur ducenti quadraginta unus; ex tanto numero quinque solummodo octogenarii, aut supra reperiuntur: primitivis autem compluribus justa ætas martyrii prærogativa anticipata est. Joannes, vicesimus tertius papa Romanus, nonagesimum ætatis annum complevit; vir ingenii inquieti, et novis rebus studens, et multa transferens, nonnulla in melius, haud pauca in aliud; magnus autem opum et thesauri accumulator. Gregorius dictus duodecimus, creatus papa in schismate, et quasi interrex, nonagenarius obiit; de eo propter brevitatem papatus nihil invenimus, quod annotemus. Paulus tertius ad octoginta et unum annos vixit; vir sedati animi et profundi consilii, idem doctus et astrologus, et valetudinem impense regens; more autem veteris sacerdotis Eli indulgens in suos. Paulus quartus octoginta tres annos vixit; vir natura asper et severus, altos gerens spiritus, et imperiosus, ingenio commotior, sermone eloquens et expeditus. Gregorius decimus tertius similem ætatem octoginta trium annorum implevit; vir plane bonus, animo et corpore sanus, politicus, temperatus, energetes et eleemosynarius.

19. Quæ sequentur, ordine promiscua, fidei magis dubiæ, observatione magis jejuna, erunt. Rex Arganthonius, qui regnavit Gadibus in Hispania, centum et triginta, aut (ut alii volunt) quadraginta, annos vixit; ex quibus octoginta regnavit: de moribus ejus et vitæ genere, et tempore quo vixit, siletur. Cinyras Cypriorum rex in insula illa, tunc habita beata et voluptaria, centum quinquaginta aut sexaginta annos vixisse perhibetur. Reges duo Latini in Italia, pater et filius, alter octingentos, alter sexcentos annos, vixisse traduntur; verum hoc narratur a philologis quibusdam, quibus et ipsis (cætera satis credulis) fides rei suspecta est, imo damnata. Arcadum reges nonnullos trecentos annos vixisse alii tradunt: regio certe ad vitam longam satis idonea; res fortasse fabulis aucta. Narrant Dandonem quendam in Illyrico absque incommodis senectutis quingentos annos vixisse. Apud Epios, Ætoliæ videlicet partem, narrant universam gentem admodum longævam fuisse; ut multi ex his ducenum annorum inventi sint; inter eos præcipuum quendam nomine Litorium, virum giganteæ staturæ, qui trecentos annos cumulaverat. In Tmoli montis fastigio (Tempsi antiquitus vocato) homines complures centum quinquaginta annos vixisse traditur. Sectam Essæorum apud Judæos ultra centum annos communiter vixisse tradunt: secta autem illa simplici admodum diæta utebatur, ad regulam Pythagoræ. Apollonius Tyanæus centum annos excessit, aspectu (ut in tanta ætate) pulcher, vir certe mirificus, apud ethnicos divinus habitus, apud Christianos magus; victu Pythagoricus, magnus peregrinator, magna etiam gloria florens, et tanquam pro numine cultus; attamen sub finem ætatis accusationes et contumelias passus, unde nihilominus incolumis quoquo modo evasit. Attamen ne longævitas sua diætæ Pythagoricæ solum tribuatur, sed etiam e genere suo aliquid traxisse videatur; avus ejus etiam centum triginta annos vixit. Q. Metellum ultra centum annos vixisse certa res est; atque, post consularia imperia feliciter administrata, pontificem maximum jam senem creatum esse, et sacra per viginti duos annos tractasse; neque ore in votis nuncupandis hæsitante, neque in sacrificiis faciendis tremula manu utentem. Appium Cæcum annosissimum fuisse constat; annos non numerant; quorum partem majorem, postquam luminibus orbatus caret, transegit; neque propterea mollitus, familiam numerosam, clientelas quamplurimas, quinctiam rempublicam fortissime rexit; extrema vero ætate lectica in senatum delatus, pacem cum Pyrrho vehementissime dissuasit; cujus principium orationis admodum memorabile, et invincibile quoddam robur, et impetum animi spirans. "Magna," inquit, "impatientia (patres conscripti) cæcitatem meam per plures jam annos tuli; at nunc etiam me surdum quoque optaverim, cum vos tam deformia consilia agitare audiam." M. Perpenna vixit annos nonaginta octo; omnibus, quos consul sententiam in senatu rogaverat (hoc est, omnibus senatoribus sui anni) superstes fuit: etiam omnibus, quos paulo post censor in senatum legerat, septem tantum exceptis. Hiero, rex Siciliæ temporibus belli Punici secundi, ad centesimum fere annum vixit; vir et regimine et moribus moderatus; numinum cultor, et amicitiæ conservator religiosus; beneficus, et constanter fortunatus. Statilia ex nobili familia, Claudii tempore, vixit annos nonaginta novem. Clodia Ofilii filia centum et quindecim. Xenophilus, antiquus philosophus, e secta Pythagoræ, centum et sex annos vixit, sana et vivida senectute, et magna apud vulgum doctrinæ fama. Insulani Corcyræi habebantur olim vivaces, sed hodie communi aliorum sorte vivunt. Hippocrates Cous, medicus insignis, centum et quatuor annos vixit; artemque suam tam longa vita comprobavit et honestavit; vir cum prudentia quadam doctus, in experientia et observatione multus; non verba aut methodos captans, sed nervos tantum scientiæ separans et proponens. Demonax philosophus (non solum professione, sed moribus) tempore Adriani, ad centenarium fere annum vixit; vir magni animi, atque animi victor, idque vere sine affectatione, et in maximo humanarum rerum contemptu, civilis et urbanus. Is cum amici de sepultura ipsius verba injicerent, "Desinite," inquit, de sepultura curare; cadaver enim fœtor sepeliet." Atque illi; "Placet ergo avibus aut canibus exponi?" Ille rursus, "Cum," inquit, "vivus hominibus prodesse pro viribus contenderim, quæ invidia est, si mortuus etiam animalibus aliquid præbeam?" Populus Indiæ, Pandoræ appellati, admodum longævi; etiam usque ad annum ducentesimum: addunt rem magis miram; scilicet cum pueri fere candido capillo fuerint, senectute ante canitiem eos nigrescere solitos: id tamen ubique vulgare est, ut pueris capillitio candidiore, virili ætate pili mutentur in obscurius. Etiam Seres, Indorum populus, cum vino suo ex palmis, longævi habiti sunt, usque ad annum centesimum tricesimum. Euphranor grammaticus consenuit in schola, et docebat literas, ultra annum centesimum. Ovidius senior, poëtæ pater, nonaginta annos vixit; diversus a moribus filii, utpote qui Musas contempsit, et poëticem filio dissuasit. Asinius Pollio, Augusti fa-

miliaris, centum annos superavit; vir ingentis luxus, eloquens, literarum cultor, attamen vehemens, superbus, crudelis, et tanquam sibi natus. Invaluit opinio de Seneca, quod admodum annosus fuerit, usque ad annum centesimum decimum quartum; quod verum esse non potest, eum tantum absit, ut senex decrepitus ad Neronis tyrocinium admotus sit, ut contra rebus gerendis strenue suffecerit; quinetiam paulo ante, medio tempore Claudii, exularit, ob adulteria aliquarum principum fœminarum; quod in talem ætatem non competit. Joannes de Temporibus, ex omnibus posterioribus seculis, traditione quadam et opinione vulgari, usque ad miraculum, vel potius usque ad fabulam, longævus perhibetur, annorum supra trecentos; natione fuit Francus, militavit autem sub Carolo Magno. Gartius Aretinus, Petrarchæ proavus, ad centum et quatuor annos pervenit, prospera semper usus valetudine, atque in extremis vires labantes sentiens potius, quam morbum; quæ vera est resolutio per senium. Ex Venetis reperiuntur haud pauci longævi, etiam gradu eminentiori; Franciscus Donatus dux; Thomas Contarenus procurator S. Marci; Franciscus Molinus item procurator S. Marci; alii. At maxime memorabile est illud de Cornaro Veneto, qui corpore, sub initio, valetudinario, cœpit primum metiri cibum et potum, ad certum pondus, in curam sanitatis: ea cura transiit usu in diætam, et ex diæta in magnam longævitatem, usque ad annum centesimum, et ultra, integris sensibus, et constanti valetudine. Gulielmus Postellus, nostra ætate, Gallus, ad centesimum et prope vicesimum annum vixit; etiam summitatibus barbæ in labro superiore nonnihil nigrescentibus, neque prorsus canis; vir capite motus, et non integræ omnino phantasiæ; magnus peregrinator, et mathematicus, et hæreticæ pravitate nonnihil aspersus.

20. Apud nos in Anglia, arbitror non existere villulam paulo populosiorem, in qua non reperiatur aliquis vir, aut mulier ex octogenariis; etiam ante paucos annos, in agro Herefordiensi, inter ludos florales, instituta erat chorea et saltatio ex viris octo, quorum ætas simul computata octingentos annos complebat; cum quod alteris eorum ad centenarium deesset, alteris aliquibus superesset.

21. In hospitali Bethleem, ad suburbia Londini, quod in sustentationem et custodiam phreneticorum institutum est, inveniuntur de tempore in tempus multi ex mente captis fuisse longævi.

22. Ætates, de quibus fabulantur, nympharum et dæmonum aëreorum, qui corpore mortales essent, sed admodum longævi (id quod et antiqua, et inter quosdam recenti superstitione et credulitate, receptum est); pro fabulis et somniis habemus; præsertim cum sit res, nec eum philosophia, nec cum religione bene consentiens. Atque de historia longævitatis in homine, per individua, aut individuis proxima, hæc inquisita sint. Jam ad observationes per capita transibimus.

23. Decursus seculorum, et successio propaginis, nihil videntur omnino demere de diuturnitate vitæ; quippe curriculum humanæ ætatis videmus, usque a tempore Mosis ad nostra, circa octogesimum annum stetisse; neque sensim et paulatim (ut quis crederet) declinasse. Sunt certe tempora in singulis regionibus, quibus homines diutius aut brevius degunt. Diutius plerumque, cum tempora fucrint barbara, et simplicioris victus, et exercitationi corporis magis dedita; brevius, cum magis civilia, et plus luxuriæ et otii: verum ista transeunt per vices, propago ipsa nihil facit. Neque dubium est, quin idem fiat in animalibus cæteris, siquidem nec boves, nec equi, aut oves, et similia, ævo, ultimis his seculis, minuuntur; itaque præcipitatio ætatis facta est per diluvium; et fieri fortasse potest per similes majores casus, (ut loquuntur,) veluti inundationes partieulares, combustiones per longas siccitates, terræ motus, et similia. Quinetiam videtur similis esse ratio in magnitudine corporum sive statura; quæ nec ipsa per successionem propaginis defluit; licet Virgilius (communem opinionem secutus) divinasset posteros futuros præsentibus minores; unde ait de campis Æmathiis, et Æmonensibus subarandis:

" Grandiaque effossis mirabitur ossa sepulchris."

Etenim cum constet fuisse quondam homines staturis giganteis, (quales et in Sicilia, et alibi, in vetustis sepulchris et cavernis, pro certo reperti sunt,) tamen jam per tria fere millenaria annorum, ad quæ producitur memoria satis certa, in iisdem locis nil tale continuatur; licet etiam hæc res per mores et consuetudines civiles vices quasdam patiatur, quemadmodum et illa altera. Atque hæc magis notanda, quia insedit animis hominum penitus opinio, quod sit perpetuus defluxus per ætatem, tum quoad diuturnitatem vitæ, tum quoad magnitudinem et robur corporis; omniaque labi et ruere in deterius.

24. Regionibus frigidioribus et hyperboreis diutius homines vivunt plerumque, quam calidioribus; quod necesse est fieri, cum et cutis sit magis astricta; et succi corporis minus dissipabiles; et spiritus ipsi minus aeres ad consumendum, et magis fabriles ad reparandum; et aër (utpote modice calefactus a radiis solis) minus prædatorius: at sub linea æquinoctiali, ubi sol transit, et duplex sit hiems et æstas, sitque etiam major æqualitas inter spatia dierum et noctium, (si cætera non impediant,) etiam bene diu vivunt; ut in Peruvia et Taprobana.

25. Insulani mediterraneis ut plurimum sunt longæviores; neque enim tam diu vivunt in Russia, quam in Orcadibus; neque tam diu in Africa ejusdem paralleli, quam in Canariis et Tercceris; Japonenses etiam Chinensibus (licet hi longævitatis appetentes sint usque ad insaniam) sunt vivaciores; nec mirum, cum aura maris, et in regionibus frigidioribus foveat, et in calidioribus refrigeret.

26. Loca excelsa potius edunt longævos, quam depressa; præsertim si non sint juga montium, sed terræ altæ quatenus ad situm eorum generalem; qualis fuit Arcadia in Græcia, et Ætoliæ pars, ubi longævi admodum fuerunt: at de montibus ipsis eadem foret ratio, propter aërem videlicet puriorem et limpidiorem, nisi hoc labefactaretur per accidens; interventu scilicet vaporum ex vallibus eo ascendentium, et ibi acquieseentium. Itaque in montibus nivalibus non reperitur aliqua insignis vitæ longitudo; non in Alpibus, non in Pyrennæis, non in Apennino;

sed medii colles, aut etiam valles dant homines longævіores; at in montium jugis protensis versus Æthiopiam et Abyssinos, ubi, propter arenas subjectas, parum aut nihil incumbit in montes vaporis, diutissime vivunt; etiam ad hodiernum diem annum non raro centesimum et quinquagesimum implentes.

27. Paludes, et tractus earum, præsertim exporrecti in plano, nativis propitii, advenis maligni, quoad vitæ prorogationem aut decurtationem; quodque mirum videri possit, paludes, aqua salsa per vices inundatæ, minus salubres, quam quæ aqua dulci.

28. Regiones particulares, quæ notatæ sunt longævos produxisse, sunt Arcadia, Ætolia, India cis Gangem, Brasilia, Taprobana, Britannia, Hybernia, cum Insulis Orcadibus et Hebridibus; nam de Æthiopia quod ab aliquo ex antiquis refertur, quod longævi fuerint, res vana est.

29. Occulte est res salubritas, præsertim perfectior, aëris; et potius experimento, quam discursu et conjectura, elicitur. Capi possit experimentum ex vellere lanæ, per expositionem in aërem cum mora aliqua dierum, minus aucto pondere: aliud ex frusto carnis diutius manente non putrefacto; aliud ex vitro calendari minori spatio reciprocante; de his et similibus amplius inquiratur.

30. Aëris non tantum bonitas aut puritas, verum etiam æqualitas, quoad longævitatem spectatur. Collium et vallium varietas, aspectui et sensui grata, longævitati suspecta; at planities modice sicca, nec tamen nimis sterilis aut arenosa, nec prorsus sine arboribus et umbra, diuturnitati vitæ magis commoda.

31. Inæqualitas aëris (ut jam dictum est) in loco mansionis mala; verum mutatio aëris in peregrinatione, postquam quis assueverit, bona; unde et magni peregrinatores longævi fuere: similiter etiam longævi, qui in tuguriolis suis, eodem loco, perpetuo vitam degerunt; aër enim assuetus minus consumit, at mutatus magis alit et reparat.

32. Ut series et numerus successionum ad diuturnitatem aut brevitatem vitæ nihil est (ut jam diximus) ita conditio immediata parentum, tam ex parte patris, quam matris, proculdubio multum potest. Alii siquidem generantur ex senibus, alii ex adolescentulis, alii ex viris ætate justiore; item alii a patribus cum sani fuerint et bene dispositi; alii a morbidis et languidis; item alii a repletis et ebriis, alii post somnum et horis matutinis; item alii post longam intermissionem veneris, alii post venerem repetitam; item alii flagrante amore patrum, (ut fit plerumque in spuriis,) alii defervescente, ut in conjugiis diuturnis. Eadem etiam ex parte matria spectantur: quibus addi debent, conditio matris, dum gestat uterum, quali sanitate, quali diæta; et tempus gestationis, ad decimum mensem, aut celerius. Hæc ad normam reducere, quatenus ad longævitatem, difficile est; atque eo difficilius, quod fortasse quæ optimo quis putaret, in contrarium cedent: etenim alacritas illa in generatione, quæ liberos corpore robustos et agiles producit, ad longævitatem minus utilis erit, propter acrimoniam et incensionem spirituum. Diximus antea, plus habere ex materno sanguine, conferre ad longævitatem; etiam mediocria simili ratione optima esse putamus; amorem potius conjugalem quam meretricium; horas generationis matutinas; statum corporis non nimis alacrem aut turgidum, et similia. Illud etiam bene observari debet, quod habitus parentum robustior ipsis magis est propitius, quam fœtui; præcipue in matre: itaque satis imperite Plato existimavit, claudicare virtutem generationum, quod mulieres similibus cum viris exercitiis, tam animi quam corporis, non utantur; illud contra se habet: distantia enim virtutis inter marem et fœminam maxime utilis est fœtui; atque fœminæ teneriores magis præbitoriæ sunt ad alendum fœtum, quod etiam in nutricibus tenet. Neque enim Spartanæ mulieres, quæ ante annum vicesimum secundum, aut (ut alii dicunt) quintum, nubere non solebant (ideoque Andromanæ vocabantur) generosiorem aut longævіorem sobolem ediderunt, quam Romanæ, aut Athenienses, aut Thebanæ, apud quas anni duodecim aut quatuordecim nubiles erant. Atque si in Spartanis aliquid fuerit egregium, id magis victus parsimoniæ debebatur, quam nuptiis mulierum serotinis. Illud vero experientia docet, esse quasdam stirpes ad tempus longævas, ut longævitas sit, quemadmodum morbi, res hæreditaria, in aliquibus periodis.

33. Candidiores genis, cute, et capillis, minus vivaces; subnigri, aut rufi, aut lentiginosi magis. Etiam rubor nimius in juventute longævitatem minus promittit, quam pallor. Cutis durior longævitatis signum potius, quam mollior; neque tamen hoc intelligitur de cute spissiori, (quam vocant anserinam,) quæ est tanquam spongiosa; sed de dura simul et compacta; quin et frons majoribus rugis sulcatus, melius signum, quam nitidus et explicatus.

34. Pili in capite asperiores, et magis setosi, ostendunt vitam longiorem, quam molles et delicati; crispi vero eandem prænunciant, si sint simul asperi; contra, si sint molles et splendentes. Item si sit crispatio potius densa, quam per largiores cincinnos.

35. Citius aut serius calvescere, res est quasi indifferens; cum calvastri plurimi longævi fuerint; etiam cito canescere (utcunque videatur canities præcursor ingruentis senectutis) res fallax est: cum haud pauci præpropere canescentes, diu postea vixerint: quinetiam præmatura canities, absque ulla calvitie, signum est longævitatis; contra, si concomitetur calvities.

36. Pilositas partium superiorum signum vitæ minus longæ; atque pectore hirsuti, et quasi jubati, minus vivaces: at inferiorum pilositas, ut femorum, tibiarum, signum longæ vitæ.

37. Proceritas staturæ (nisi fuerit enormis) compage commoda, et sine gracilitate, præsertim si concomitetur corporis agilitas, signum longæ vitæ; at contra, homines brevioris staturæ magis vivaces, si fuerint minus agiles et motu tardiores.

38. In corporis analogia; qui corpore aliquanto breviores sunt, tibiis longioribus, longævіores sunt, quam qui corpore magis demisso, tibiis autem brevioribus: item, qui inferioribus partibus largiores sunt, et superioribus contractiores, (structura corporis quasi surgente in acutum,) longævіores, quam qui humeros lati, deorsum sunt tanquam attenuati.

39. Macies cum affectibus sedatis, tranquillis, et facilibus; pinguior autem habitus cum cholera, ve-

hementia, et pertinacia, diuturnitatem vitæ significeant; obesitas autem in juventute breviorem vitam præmonstrat, in senectute res est magis indifferens.

40. Diu et sensim grandescere, signum vitæ longæ; si ad staturam magnam, magnum signum: sin ad minorem, signum tamen: at contra velociter grandescere ad staturam magnam, signum malum est; sin ad staturam brevem, minus malum.

41. Carnes firmiores, et corpus musculosum et nervosum, et nates minus tumentes, (quantum sedendo tantum sufficiant,) et venæ paulo eminentiores, longævitatem denotant: contraria brevitatem vitæ.

42. Caput, pro analogia corporis, minutius; collum mediocre, non oblongum, aut graeile, aut tumidum, aut tanquam humeris impactum; nares patulæ, quacunque forma nasi; os largus; auris cartilaginea, non carnosa; dentes robusti et contigui, non exiles, aut rari, longævitatem prænunciant; et multo magis, si dentes aliqui novi provectiore ætate proveniant.

43. Pectus latius, sed non elevatum, quin potius adductius; humeriqne aliquantulum gibbi, et (ut loquuntur) fornicati; venter planus, nec prominens; manus largior, et palma minus lineis exarata; pes brevior et rotundior; femora minus carnosa; snræ non cadentes, sed se altius sustentantes, signa longævitatis.

44. Oculi paulo grandiores, atque iris ipsorum cum quodam virore; sensus omnes non nimis acuti; pulsus juventute tardior, sub ætatem vergentem paulo incitatior; detentio anhelitus facilior et in plura momenta; alvus juventute siccior, vergente ætate humidior, signa etiam longævitatis.

45. De temporibus nativitatis nihil observatum est, quoad longævitatem, memoratu dignum, præter astrologica, quæ in topicis relegavimus. Partus octimestris, non solum pro non vivaci, verum etiam pro non vitali habetur; etiam partus hiemales habentur pro longævioribus.

46. Victus sive diæta Pythagorica, aut monastica, secundum regulas strictiores, aut ad amussim æqualis (qualis fuit illa Cornari) videtur potenter facere ad vitæ longitudinem. At contra ex iis, qui libere et communi more vivunt, longæviores reperti sunt sæpenumero edaces et epulones, denique qui liberaliore mensa usi sunt. Media diæta, quæ habetur pro temperata, laudatur, et ad sanitatem confert, ad vitam longævam parum potest; etenim diæta illa strictior spiritus progignit paucos, et lentos, unde minus consumit; at illa plenior alimentum præbet copiosum, unde magis reparat; media neutrum præstat: ubi enim extrema nociva sunt, medium optimum; verum ubi extrema juvativa, medium nihili fere est. Diætæ autem illi strictiori convenit etiam vigilia, ne spiritus pauci multo somno opprimantur; exercitatio item modica, ne exolvantur; veneris abstinentia, ne exhauriantur: at diætæ, uberiori convenit contra somnus largior, exercitatio frequentior, usus veneris tempestivus. Balnea et unguenta (qualia fuerunt in usu) deliciis potius, quam vitæ producendæ, accommodata fuerunt; verum de his omnibus, cum ad inquisitionem secundum intentiones ventum erit, accuratius dicemus. Illud interim Celsi medici, non solum docti, verum etiam prudentis, non contemnendum est; qui varietatem et alternationem diætæ jubet, sed cum inclinatione in partem benigniorem; scilicet, ut quis vigiliis quandoque se assuescat, alias somno indulgeat, sed somno sæpius: itidem interdum jejunet, interdum epuletur, sed epuletur sæpius; interdum animi contentionibus strenue incumbat, interdum remissionibus utatur, sed remissionibus sæpius. Illud certe minime dubium est, quin diæta bene instituta partes ad prolongandam vitam potiores teneat; neque conveni unquam aliquem valde longævum, qui interrogatus de victu suo non observasset aliquid peculiare; alii alia. Equidem memini quendam senem centenario majorem, qui producius est testis de antiqua quadam præscriptione; is cum, finito testimonio, a judice familiariter interrogaretur, quid agens tam diu vixisset; respondit, (præter expectatum, et cum risu audientium,) "Edendo antequam esurirem, et potando anteqnam sitirem." Sed de his (ut dictum est) postea.

47. Vita religiosa et in sacris videtur ad longævitatem facere. Sunt in hoc genere vitæ, otium; admiratio et contemplatio rerum divinarum; gaudia non sensualia; spes nobiles; metus salubres; mœrores dulces; denique renovationes continuæ per observantias, pœnitentias et expiationes; quæ omnia ad diuturnitatem vitæ potenter faciunt. Quibus si accedat diæta illa austera, quæ massam corporis induret, spiritus humiliet, nil mirum si sequatur longævitas insignis; qualis fuit Pauli eremitæ, Symeonis Stylitæ anachoretæ columnaris, et complurium aliorum monachorum ex eremo, et anachoretarum.

48. Huic proxima est vita in literis, philosophorum, rheturum, et grammaticorum. Degitur hic quoque in otio et in iis cogitationibus, quæ, cum ad negotia vitæ nihil pertineant, non mordent, sed varietate et impertinentia delectant; vivunt etiam ad arbitrium suum, in quibus maxime placeat horas et tempus terentes; atque in consortio plerumque adoleseentium, quod paulo lætius est. In philosophiis autem magna est diserepantia, quoad longævitatem, inter sectas. Etenim philosophiæ, quæ nonnihil habent ex superstitione et contemplationibus sublimibus, optimæ, ut Pythagoriea, Platonica: etiam quæ mundi perambulationem et rerum naturalium varietatem complectebantur, et cogitationes habebant discinctas, et altas, et magnanimas (de infinito, et de astris, et de virtutibus heroicis, et hujusmodi) ad longævitatem bonæ; quales fuerunt Democriti, Philolai, Xenophonis, astrologorum, et Stoicorum: etiam quæ nihil habebant speculationis profundioris, sed ex sensu communi, et opinionibus vulgatis, absque inquisitione acriori, in omnem partem placide disputabant, similiter bonæ; quales fuerunt Carneadis et Academicorum; item rhetorum et grammaticorum: at contra, philosophiæ in subtilitatum molestiis versantes, et pronuntiativæ, et singula ad principiorum trutinam examinantes et torquentes; denique spinosiores et angustiores, malæ; quales fuerunt plerunque Peripateticorum et scholasticorum.

49. Vita rustieana item ad longævitatem idonea; frequens est sub dio et aëre libero; non socors, sed in motu; dapibus plerumque recentibus et inemptis; sine curis et invidia.

50. De vita militari, in juventute, etiam bonam habemus opinionem; certe complures bellatores

egregii longævi fuerunt; Corvinus, Camillus, Xenophon, Agesilaus, et alii tam prisci, quam moderni: prodest certe longævitati, si a juventute ad ætatem provectam omnia crescant in benignius, ut juventus laboriosa dulcedinem quandam senectuti largiatur; existimamus etiam affectus militares, ad contentionis studium et spem victoriæ erectos, talem infundere ealorem spiritibus, qui longævitati prosit.

MEDICINÆ AD LONGÆVITATEM.

Ad Art. 10. Connexio. Medicina, quæ habetur, intuetur fere tantum conservationem sanitatis, et curationem morborum: de iis autem, quæ proprie spectant ad longævitatem, parva est mentio et tanquam obiter. Proponemus tamen ea medicamenta, quæ in hoe genere notantur, cordialia scilicet quæ vocantur. Etenim quæ, sumpta in curationibus, cor et (quod verius est) spiritus muniunt et roborant contra venena et morbos, translata cum judicio et delectu in diætam, etiam ad vitam produeendam aliqua ex parte prodesse posse consentaneum est. Id faciemus non promiscue ea cumulantes, (ut moris est,) sed excerpentes optima.

1. Aurum triplici forma exhibetur; aut in auro (quod appellant) potabili; aut in vino extinctionis auri; aut in auro in substantia; qualia sunt, aurum foliatum et limatura auri. Quod ad aurum potabile attinet, cœpit dari in morbis desperatis aut gravioribus pro egregio cordiali, atque successu non contemnendo. Verum existimamus spiritus salis, per quos fit dissolutio, virtutem illam, quæ reperitur, largiri potius quam ipsum aurum; quod tamen sedulo celatur: quod si aperiri possit aurum absque aquis eorrosivis, aut per corrosivas (modo absit qualitas venenata) bene postea ablutas, rem non inutilem fore arbitramur.

2. Margaritæ sumuntur aut in pulvere lævigato, aut in malagmate quodam sive dissolutione per succum limonum impense acerborum et recentium; atque dantur aliquando in confeetionibus aromatieis, aliquando in liquore. Margarita proculdubio affinitatem habet eum concha, cui adhæret; et possit esse similis fere qualitatis cum testis eancrorum fluviatilium.

3. Inter gemmas erystallinas habentur pro cordialibus præcipue duæ; smaragdus et hyacinthus; quæ dantur sub iisdem formis, quibus margaritæ, excepto quod dissolutiones earum (quod scimus) non sint in usu. Verum nobis magis suspectæ sunt gemmæ illæ vitreæ ob asperitatem.

Monitum. De his quæ memoravimus, quatenus et quomodo juvamentum præbeant, postea dicetur.

4. Lapis bezoar probatæ est virtutis; quod spiritus recreet, et lenem sudorem provocet. Cornu autem monoceratis de existimatione sua deeidit; ita tamen ut gradum servet eum cornu cervi, et osse de corde cervi, et ebore, et similibus.

5. Ambra-grisia ex optimis est ad spiritus demulcendos et confortandos. Sequuntur nomina tantum simplicium, eum virtutes ipsarum satis sint eognitæ.

Calida. Crocus: folium Indum: lignum aloës: cortex eitri: melissa: ocymum: caryophyllata: flores aurantiorum: rosmarinus: mentha: betonica: carduus benedictus.

Frigida. Nitrum: rosa: viola: fragaria: fraga: succus limonum dulcium: succus aurantiorum dulcium: succus pomorum fragrantium: borago: buglossa: pimpinella: santalum: camphora.

Monitum. Cum de iis jam sermo sit, quæ in diætam transferri possint, aquæ illæ ardentiores, atque olea chemica, (quæ, ut ait quidam ex nugatoribus, sunt sub planeta Martis, et habent vim furiosam et destructivam,) quinctiam aromata ipsa acria et mordacia, rejicienda sunt; et videndum quomodo componi possint aquæ et liquores ex præcedentibus: non phlegmaticæ illæ stillatitiæ, neque rursus ardentes ex spiritu vini, sed magis temperatæ, et nihilominus vivæ, et vaporem benignum spirantes.

6. Hæsitamus de frequenti sanguinis missione, utrum ad longævitatem conferat; et potius in ea sumus opinione, quod hoc faciat, si in habitum versa fuerit, et cætera sint accommodata; etenim succum corporis veterem emittit, et novum inducit.

7. Arbitramur etiam morbos quosdam emaciantes, bene curatos, ad longævitatem prodesse; succos enim novos præbent veteribus consumptis; atque (ut ait ille) convalescere est juvenescere; itaque inducendi sunt tanquam morbi quidam artificiales, id quod fit per diætas strictas et emaciantes, de quibus postea dicemus.

INTENTIONES.

Ad Art. 12, 13, et 14. Connexio. Postquam autem inquisitionem absolverimus secundum subjecta, videlicet, corporum inanimatorum, vegetabilium, animalium, hominis; propius accedemus, et inquisitionem per intentiones ordinabimus; veras et proprias (ut omnino arbitramur) quæque sint tanquam semitæ vitæ mortalis. Neque enim in hâc parte quicquam, quod valeat, hactenus inquisitum est; sed plane fuerunt hominum contemplationes quasi simplices et non proficientes. Nam cum audiamus ex una parte homines de confortando calore naturali, atque humore radicali; atque de eibis, qui generant sanguinem laudabilem, quique sit nec torridus, nec phlegmaticus; atque de refocillatione et recreatione spirituum, verba facientes; existimamus sane homines non malos esse, qui hæc loquuntur: sed nihil horum potenter facit ad finem. Cum vero ex altera parte audiamus sermones inferri de medicinis ex auro (quia scilicet aurum corruptioni est minime obnoxium) et de gemmis, ad recreandos spiritus propter proprietates occultas et clarorem suum; quodque si possint detineri, et excipi in vasibus, balsama et quintæ essentiæ animalium, superbam faceret spem immortalitatis: quodque earnes serpentum et cervorum consensu quodam valeant ad renovationem vitæ, quia alter mutat spolia, alter cornua, (debuerant autem earnes aquilarum adjungere, quia aquila mutat rostrum,) quodque quidam, cum unguentum sub terra defossum reperisset, eoque se a capite ad pedes usque unxisset (exceptis plantis pedum) ex hujusmodi unctione trecentos annos vix-

isset absque morbo (præter tumores plantarum pedum) atque de Artefio, qui, cum spiritum suum labascere sensisset, spiritum adolescentis enjusdam robusti ad se traxisset, eumque inde exanimasset, sed ipse complures annos ex alieno illo spiritu vixisset; et de horis fortunatis secundum schemata cœli, in quibus medicinæ ad vitam producendam colligi et componi debent; atque de sigillis planetarum, per quæ virtutes cœlitus ad prolongationem vitæ haurire et deducere possimus; et hujusmodi fabulosis et superstitiosis; prorsus miramur homines ita mente captos, ut iis hujusmodi res imponi possit. Denique, subit humani generis miseratio, quod tam duro fato obsideatur, inter res inutiles et ineptas. Nostræ autem intentiones, et rem ipsam premere, et procul esse a commentis vanis et credulis, confidimus; et tales, ut rebus, quæ illis intentionibus satisfaciant, a posteris quamplurima, intentionibus autem ipsis, non multum addi posse existimemus.

Sunt tamen pauca, sed magni prorsus momenti, quorum homines præmonitos esse volumus.

Primo, nos in hac sententia sumus, ut existimemus officia vitæ esse vita ipsa potiora. Itaque, si quid sit ejusmodi, quod intentionibus nostris magis exacte respondere possit, ita tamen ut officia et munia vitæ omnino impediat; quicquid hujus generis sit rejicimus: levem fortasse aliquam mentionem hujusmodi rerum faciemus, sed minime illis insistimus. Neque enim de vita aliqua in speluncis, ubi radii et tempestates cœli non penetrant, instar antri Epimenidis; aut de perpetuis balneis ex liquoribus præparatis; aut de superpellicijis et ceratis ita applicandis, ut corpus perpetuo sit tanquam in capsula; aut de pigmentis spissis, more barbarorum nonnullorum: aut de ordinatione victus et diætæ accurata, quæ solum hoc videatur agere, et nihil aliud curare, quam ut quis vivat, (qualis fuit Herodici apud antiquos, et Cornari Veneti nostro seculo, sed majore cum moderatione,) aut de hujusmodi portentis, fastidiis, et incommodis, sermonem aliquem serium et diligentem instituimus; sed ea afferimus remedia et præcepta, ex quibus officia vitæ non deserantur, aut nimias excipiant moras et molestias.

Secundo, ex altera parte, hominibus denunciamus, ut nugari desinant, nec existiment tantum opus, quantum est naturæ potentem cursum remorari et retrovertere, posse haustu aliquo matutino, aut usu alicujus pretiosæ medicinæ, ad exitum perduci; sed ut pro certo habeant, necesse esse ut hujusmodi opus sit plane res operosa, et quæ ex compluribus remediis, atque eorum inter se connexione idonea, constet; neque enim quisquam ita stupidus esse debet, ut credat id, quod nunquam est factum, fieri posse nisi per modos etiam nunquam tentatos.

Tertio diserte profitemur, nonnulla ex iis, quæ proponemus, experimento nobis non esse probata, (neque enim hoc patitur nostrum genus vitæ,) sed tantum summa (ut arbitramur) ratione, ex principiis nostris et præsuppositis (quorum alia inserimus, alia mente servamus) esse derivata; et tanquam ex rupe aut minera ipsius naturæ excisa et effossa. Neque tamen curam omisimus, eamque providentem et sedulam, quin (quandoquidem de corpore humano agatur, quod, ut ait Scriptura, est *supra vestimentum*) ea proponamus remedia, quæ sint tuta saltem, si forte non fuerint fructuosa.

Quarto, illud homines rite et animadvertere, et distinguere volumus; non eadem semper, quæ ad vitam sanam, ad vitam longam conferre. Sunt enim nonnulla, quæ ad spirituum alacritatem, et functionum robur et vigorem prosunt, quæ tamen de summa vitæ detrahunt. Sunt et alia, quæ ad prolongationem vitæ plurimum juvant, sed tamen non sunt absque periculo valetudinis; nisi per accommodata quædam huic rei occurratur; de quibus tamen (prout res postulat) cautiones et monita exhibere non prætermittemus.

Postremo, visum est nobis varia remedia, secundum singulas intentiones, proponere; delectum vero remediorum, atque ordinem ipsorum, in medio relinquere. Etenim ex ipsis, quæ constitutionibus corporum diversis, quæ generibus vitæ variis, quæ ætatibus singulis, maxime conveniant, quæque alia post alia sumenda sint, et quomodo praxis universa harum rerum sit instruenda et regenda, exacta perscribere, et nimis longum foret, neque idoneum est quod publicetur.

Intentiones in topicis proposuimus tres. Prohibitionem consumptionis; perfectionem reparationis; et renovationem veterationis. Verum, cum quæ dicentur nihil minus sint quam verba, intentiones illas tres ad decem operationes deducemus.

1. Prima est operatio super spiritus, ut revireseant.

2. Secunda operatio est super exclusionem aëris.

3. Tertia operatio est super sanguinem et calorem sanguificantem.

4. Quarta operatio est super succos corporis.

5. Quinta operatio est super viscera ad extrusionem alimenti.

6. Sexta operatio est super partes exteriores ad attractionem alimenti.

7. Septima operatio est super alimentum ipsum ad insinuationem ejusdem.

8. Octava operatio est super actum ultimum assimilationis.

9. Nona operatio est super intenerationem partium, postquam cœperint desiccari.

10. Decima operatio est super expurgationem succi veteris et substitutionem succi novi.

Harum operationum primæ quatuor pertinent ad intentionem primam; quatuor proxima ad intentionem secundam; duæ ultimæ ad intentionem tertiam.

Cum vero hæc pars, de intensionibus, ad praxin innuat; sub historiæ nomine, non solum experimenta et observationes, sed etiam consilia, remedia, causarum explicationes, assumpta, et quæcunque huc spectant, immiscebimus.

I.

OPERATIO SUPER SPIRITUS, UT MANEANT JUVENILES, ET REVIRESCANT.

Historia.

1. Spiritus omnium, quæ in corpore fiunt, fabri sunt atque opifices. Id et consensu, et ex infinitis instantiis patet.

2. Si quis possit efficere, ut in corpore senili

rursus indantur spiritus, quales sunt in juvene; rotam hanc magnam rotas reliquas minores eireumagere, et naturæ cursum retrogradum fieri posse, consentaneum est.

3. In omni consumptione, sive per ignem, sive per ætatem, quo plus spiritus rei, sive calor, depræ datur humorem, eo brevior est duratio rei. Id ubique occurrit et patet.

4. Spiritus in tali temperamento et gradu activitatis ponendi sunt, ut succos corporis (ut ait ille) non bibant et sorbeant, sed pitissent.

5. Duo sunt genera flammarum; una acris et impotens, quæ tenuiora evolare facit, in duriora parum potest; ut flamma ex stramine vel ramentis ligni: altera fortis et constans, quæ etiam insurgit in dura et obstinata; qualis est lignorum grandiorum, et similium.

6. Flammæ aeriores, et tamen minus robustæ, corpora desiccant, et reddunt effœta et exsucta; at fortiores corpora intenerant et liquant.

7. Etiam ex medicinis dissipantibus nonnullæ in tumoribus tenuia tantum emittunt, ideoque indurant; nonnullæ potenter discutiunt, ideoque emolliunt.

8. Etiam in purgantibus et abstergentibus quædam magis fluida raptim asportant; quædam magis contumacia et viscosa trahunt.

9. Spiritus tali calore indui et armari debent, ut potius ament dura et obstinata convellere et subrue re, quam tenuia et præparata emittere et asportare: eo enim modo fit corpus viride et solidum.

10. Spiritus ita subigendi et componendi sunt, ut fiant substantia densi, non rari; calore pertinaces, non acres; copia quanta sufficit ad munia vitæ, non redundantes aut turgidi: motu sedati, non subsultorii et inæquales.

11. Super spiritus plurimum operari et posse vapores, ex somno, et ebrietate, et passionibus melancholicis, et lætificantibus, et recreatione spirituum per odores in deliquiis, et languoribus, patet.

12. Spiritus quatuor modis condensantur. Aut fugando; aut refrigerando; aut demulcendo; aut sedando. Atque primum de condensatione per fugam videndum.

13. Quicquid fugat undequaque, cogit corpus in centrum suum, atque ideo condensat.

14. Ad condensationem spirituum per fugam longe potentissimum et efficacissimum est opium; et deinde opiata, atque generaliter soporifera.

15. Efficacia opii ad condensationem spirituum admodum insignis est; cum tria fortasse grana ejus spiritus paulo post ita coagulent, ut non redeant, sed extinguantur, et reddantur immobiles.

16. Opium et similia non fugant spiritus propter frigus suum, (habent enim partes manifesto calidas,) sed e converso refrigerant propter fugam spirituum.

17. Fuga spirituum ex opio et opiatis optime cernitur in illis exterius applicatis; quia subinde spiritus statim se subduecunt, nec amplius accedere volunt, sed mortificatur pars, et vergit ad gangrænam.

18. Opiata in magnis doloribus, veluti calculi, aut in abscissione membrorum, dolores mitigant; maxime per fugam spirituum.

19. Opiata sortiuntur bonum effectum ex mala causa; fuga enim spirituum mala; condensatio autem eorum a fuga bona.

20. Græci multum posuerunt, et ad sanitatem, et ad prolongationem vitæ, in opiatis: Arabes vero adhuc magis; in tantum ut medicinæ suæ grandiores (quas *Deorum manus* vocant) pro basi sua et ingrediente principali habeant opium; reliquis admistis ad ejus noxias qualitates retundendas et corrigendas; quales sunt theriaca, mithridatium, et cætera.

21. Quicquid in cura morborum pestilentialium et malignorum feliciter exhibetur, ut spiritus sistantur et frænentur, ne turbent et tumultuentur; id optime transfertur ad prolongationem vitæ; cum idem faciat ad utrumque; condensatio videlicet spirituum. Id autem præstant ante omnia opiata.

22. Turcæ opium experiuntur, etiam in bona quantitate, innoxium et confortativum; adeo ut etiam ante prœlia ad fortitudinem illud sumant; nobis vero, nisi in parva quantitate, et cum bonis correctivis, lethale est.

23. Opium et opiata manifesto deprehenduntur excitare venerem; quod testatur vim ipsorum ad roborandos spiritus.

24. Aqua stillatitia ex sylvestri papavere ad crapulam, febres, et varios morbos feliciter adhibetur; quæ proculdubio est temperatum genus opiati: neque de varietate usus ejus miretur quispiam; id enim opiatis familiare est; quia spiritus roboratus et densatus insurgit in quemeunque morbum.

25. Turcæ habent etiam in usu herbæ genus, quam vocant Caphe, quam desiccatam pulverizant, et in aqua calida propinant; quam dicunt haud parvum præstare illis vigorem, et in animis et in ingeniis: quæ tamen, largius sumpta, mentem movet et turbat; unde manifestum est eam esse similis naturæ cum opiatis.

29. Celebratur in universo oriente radix quædam vocata Betel, quam Indi, et reliqui in ore habere et mandere consueverunt; atque ex ea mansione mire recreantur, et ad labores tolerandos, et ad languores discutiendos, et ad coitum fortificandum; videtur autem esse ex narcotieis, quia magnopere denigrat dentes.

27. Incipit nostro seculo in immensum eresceve usus tobaceo; atque afficit homines occulta quadam delectatione, ut qui illi semel assueti sint, difficile postea abstineant; et facit proculdubio, ad corpus allevandum, et tollendas lassitudines; atque vulgo virtus ejus refertur eo, quod aperiat meatus, et eliciat humores: attamen rectius referri potest ad condensationem spirituum: cum sit hyoscyami quoddam genus, et caput manifesto turbet, quemadmodum opiata.

28. Sunt aliquando humores generati in corpore, qui et ipsi sunt tanquam opiati; ut fit in aliquibus melancholiis, quibus si quis corripiatur, admodum fit longævus.

26. Opiata (quæ etiam narcotica voeantur et stupefactiva) simplicia sunt, opium ipsum, quod est succus papaveris; papaver utrunque, et in herba, et in semine; hyoscyamus; mandragora; cicuta; tobaceo; solanum.

30. Opiata composita sunt, theriaca, Mithridatium, triferæ, ladanum Paraeelsi, diacodium, diascordium, Philonium, pilulæ de eynoglossa.

31. Ex his, quæ dicta sunt, possent deduci quædam designationes, sive consilia ad prolongationem vitæ, secundum hanc intentionem, scilicet condensationis spirituum per opiata.

32. Sit itaque quotannis, a juventute adulta, diæta quædam opiata. Usurpetur sub fine Maii; quia spiritus æstate maxime solvuntur et attenuantur, et minor instat metus ab humoribus frigidis: sit vero opiatum aliquod magistrale, debilius quam ea quæ in usu sunt, et quoad minorem quantitatem opii, et quoad parciorem mixturam impense calidorum: sumatur mane inter somnos; victus sit simplicior et parcior, absque vino, aut aromatibus, aut vaporosis; sumatur autem medicina alternis tantum diebus, et continuetur diæta ad quatnordecim dies. Hæc designatio judicio nostro intentioni haud perperam satisfacit.

33. Possit etiam esse acceptio opiatorum, non tantum per os, sed etiam per fumos: sed talis esse debet, ut non moveat nimis facultatem expulsivam, aut eliciat humores; sed tantum brevi mora operetur super spiritus intra cerebrum; itaque suffumigatio matutina, per os et nares excepta, cum tobacco, admisto ligno aloës, et foliis siccis roris-marini et parum myrrhæ, utilis foret.

34. In opiatis magnis, qualia sunt theriaca, Mithridatium, et cætera, (præsertim in juventute,) non malum forct potius aquas ipsorum stillatitias sumere, quam corpora ipsorum; etenim vapor in distillando surgit; calor medicamenti fere subsidet: aquæ autem stillatitiæ plerumque in virtutibus, quæ per vapores fiunt, bonæ; in cæteris, enerves.

35. Sunt medicamenta, quæ gradum habent quendam debilem et occultum, et propterea tutum, ad virtutem opiatam; ea immittunt vaporem lentum et copiosum, sed non malignum, quemadmodum opiata faciunt: itaque spiritus non fugant, sed congregant tamen et nonnihil inspissant.

36. Medicamenta in ordine ad opiata sunt ante omnia crocus, atque ejus flores; deinde folium Indum; ambra-grisia; coriandri semen præparatum; amomum et pseudamomum; lignum Rhodium; aqua florum aurantiorum, et multo magis infusio florum eorundem recentium in oleo amygdalino; nux moschiata foraminata et in aqua rosacea macerata.

37. Ut opiata parce admodum et certis temporibus, (ut dictum est,) ita hæc secundaria familiariter, et in victu quotidiano, sumi possunt; et multum conferunt ad prolongationem vitæ. Certe pharmacopœus quidam Calecutiæ, ex usu ambræ, ad centum sexaginta annos vixisse perhibetur; atque nobiles in Barbaria, ex ejusdem usu, longævi reperiuntur, cum plebs brevioris æ vi; et apud majores nostros, qui nobis fuerunt vivaciores, crocus magno in usu fuit, in placentis, jusculis, &c. Atque de primo modo condensationis spirituum, per opiata et subordinata, hæc inquisita sint.

38. Jam vero de secundo modo condensationis spirituum, per frigus, inquiremus; proprium enim opus frigoris est densatio; atque perficitur absque malignitate aliqua, aut qualitate inimica: ideoque tutior est operatio, quam per opiata; licet paulo minus potens, si per vices tantum, quemadmodum opiata, usurparetur: at rursus, quia familiariter et in victu quotidiano moderate adhiberi potest, etiam longe potentior ad prolongationem vitæ est, quam per opiata.

39. Refrigeratio spirituum fit tribus modis; aut per respirationem; aut per vapores; aut per alimenta. Prima optima est, sed fere extra nostram potestatem; secunda etiam potens, et tamen præsto est; tertia debilis et per circuitus.

40. Aër limpidus, et purus, et nihil habens fuliginis, antequam recipiatur in pulmones, et minus obnoxius radiis solis, spiritus optime densat. Talis invenitur aut in jugis montium siccis, aut in campestribus perflatilibus et tamen umbrosis.

41. Quoad refrigerationem et densationem spirituum per vapores, radicem hujus operationis ponimus in nitro, veluti creatura ad hoc propria et electa; his usi et persuasi indiciis:

42. Nitrum est tanquam aroma frigidum; idque indicat sensus ipse. Mordet enim et tentat linguam et palatum frigore, ut aromata calore; atque inter ea, quæ novimus, unicum est et solum, quod hoc præstet.

43. Frigida fere omnia (quæ sunt proprie frigida, non per accidens, ut opium) habent spiritum exilem et pancum; contra spirituosa sunt omnia fere calida. Solum invenitur nitrum in natura vegetabili, quod spiritu abundet, et tamen sit frigidum. Nam caphura, quæ est spirituosa, et tamen edit actiones frigidi, refrigerat per accidens tantum; nempe tenuitate sua, absque acrimonia, juvando perspirationem in inflammationibus.

44. In congelatione et conglaciatione liquorum, quæ nuper cœpit esse in usu, per nivem et glaciem ad exteriora vasis appositas, immiscetur nitrum; atque proculdubió excitat et roborat congelationem: verum est, etiam usurpari ad hoc salem nigrum communem, qui potius activitatem indit frigori nivali, quam per se infrigidat; sed, ut accepi, in regionibus calidioribus, ubi nix non cadit, fit conglaciatio a nitro solo: sed hoc mihi compertum non est.

45. Pulvis pyrius, qui præcipue constat ex nitro, perhibetur epotus conducere ad fortitudinem, et usurpari a nautis sæpenumero et militibus ante prælia, quemadmodum a Turcis opium.

46. Datur feliciter nitrum in causonibus et febribus pestilentialibus, ad leniendos et frænandos ardores earum perniciosos.

47. Manifestissimum est nitrum in pulvere pyrio magnopere exhorrere flammam; unde fit admirabilis illa ventositas et exsufflatio.

48. Nitrum deprehenditur esse veluti spiritus terræ: etenim certissimum est, quamcunque terram, licet puram, neque nitrosis admixtam, ita accumulatam et tectam, ut immunis sit a radiis solis, neque emittat aliquod vegetabile, colligere etiam satis copiose nitrum; unde liquet spiritum nitri, non tantum spiritui animalium, verum etiam spiritui vegetabilium esse inferiorem.

49. Animalia quæ potant ex aqua nitrosa, manifesto pinguescunt; quod signum est frigidi in nitro.

50. Impinguatio soli maxime fit a nitrosis: omnis enim stercoratio est nitrosa: atque hoc signum est spiritus in nitro.

51. Ex his patet spiritus humanos per spiritum

nitri posse infrigidari et densari, et fieri magis crudos et minus acres: quemadmodum igitur vina fortia, et aromata, et similia, spiritus incendunt, et vitam abbreviant; ita et nitrum e converso illos componit et comprimit, et facit ad longævitatem.

52. Usus autem nitri potest esse in cibo inter salem, ad decimam partem salis; in jusculis matutinis, ad grana a tribus ad decem; etiam in potu; sed qualitercunque usurpatum eum modo, ad longævitatem summe prodest.

53. Quemadmodum opium præcipuas partes tenet in condensatione spirituum per fugam, atque habet simul sua subordinata, minus potentia, sed magis tuta, quæ et majori quantitate et frequentiori usu simi possunt, de quibus superius diximus: ita similiter et nitrum, quod condensat spiritus per frigus, et quandam (ut moderni loquuntur) frescuram, habet quoque et ipsum sua subordinata.

54. Subordinata ad nitrum sunt omnia, quæ exhibent odorem nonnihil terreum; qualis est odor terræ puræ et bonæ, recenter effossæ et versatæ: in his præcipua sunt borago, buglossa, hippo-buglossa, pimpinella, fragaria, et fraga ipsa, frambesia, fructus cucumeris crudus, poma cruda fragrantia, folia et gemmæ vitis, etiam viola.

55. Proxima sunt ea, quæ habent quendam virorem odoris, sed paulo magis vergentem ad calidum, neque omnino expertem virtutis illius refrigerii: qualia sunt melissa, citrum viride, aurantium viride, aqua rosacea stillaticia; pyra assa fragrantia; etiam rosa pallida, rubea, et muscatella.

56. Illud notandum est, subordinata ad nitrum plerumque plus ad intentionem conferre cruda, quam ignem passa; quia spiritus ille refrigerii ab igne dissipatur; itaque bene sumuntur infusa in potu, aut eruda.

57. Quemadmodum condensatio spiritus per subordinata ad opium fit aliquatenus per odores; similiter et illa, quæ fit per subordinata ad nitrum; itaque odor terræ recentis et puræ spiritus optimæ compescit, sive aratrum sequendo, sive fodiendo, sive herbas inutiles evellendo; etiam folia, in sylvis et sepibus, vergente autumno, decidentia, bonum refrigerium præstant spiritibus; et maxime omnium, fragaria moriens. Etiam odor violæ, aut florum parietariæ, aut fabarum, aut rubi suavis, et madreselve, exceptus dum crescunt, similis est naturæ.

58. Quin et novimus virum nobilem longævum, qui statim a somno, glebam terræ recentis, sub nares apponi quotidie fecit, ut ejus odorem exciperet.

59. Dubium non est, quin refrigeratio et attemperatio sanguinis per frigida, qualia sunt endivia, cichorea, hepatica, portulaca, etc. per consequens infrigidet quoque spiritus; sed hoc fit per circuitum; at vapores operantur immediate.

Atque de condensatione spirituum per frigus jam inquisitum est; tertiam diximus esse condensationem per id, quod vocamus, demulcere spiritus: Quartam per sedationem alacritatis et motus nimii ipsorum.

60. Demulcent spiritus quæcunque illis sunt grata atque amica; neque tamen provocant eos nimium ad exterius; sed contra faciunt ut spiritus, quasi seipsis contenti, se fruantur, et recipiant se in centrum suum.

61. De his, si repetas ea, quæ superius posita sunt, tanquam subordinata et ad opium et ad nitrum; nihil est opus alia inquisitione.

62. Quod vero ad sedationem impetus spirituum attinet, de ea mox dicemus, cum de motu ipsorum inquiremus: nunc igitur postquam de densatione spirituum diximus, (quæ pertinet ad substantiam ipsorum,) veniendum ad modum caloris in ipsis.

63. Calor spirituum, ut diximus, ejus generis esse debet, ut sit robustus, non acris; et amet obstinata subruere, potius quam attenuata asportare.

64. Cavendum ab aromatibus, vino, et potu forti; ut usus ipsorum sit valde temperatus et abstinentia interpolatus: etiam a satureia, origano, pulegio, et omnibus, quæ ad palatum aeria sunt et incensiva. Illa enim præstant spiritibus calorem non fabrilem, sed prædatorium.

65. Robustum præbent calorem præcipue ennila, allium, cardnus benedictus, nasturtium adolescens, chamædrys, angelica, zedoaria, verbena, valeriana, myrrha, costum, sambuci flores, myrrhis. Horum usus cum delectu et judicio, alias in condimentis, alias in medicamentis, huic operationi satisfaciet.

66. Bene etiam cedit, quod opiata magna huic quoque operationi egregie serviunt: eo videlicet, quod exhibent calorem talem per compositionem, qualis in simplicibus optatur, sed vix habetur: etenim recipiendo calida illa intensissima (qualia sunt euphorbium, pyrethrum, stachys-agria, dracontium, anacardi, castoreum, aristolochium, opopanax, ammoniacum, galbanum, et similia; quæ intus per se sumi non possunt) ad retundendam vim narcoticam opii, constituunt demum talem complexionem medicamenti, qualem jam requirimus; quod optime perspicitur in hoc, quod theriaca et Mithridatium, et reliqua, non sunt acria nec mordent linguam; sed tantum sunt paululum amara, et odoris potentis, et produnt demum calliditatem suam in stomacho et operationibus sequentibus.

67. Etiam ad calorem robustum spirituum facit venus sæpe excitata, raro peracta: atque nonnulli ex affectibus, de quibus postea dicetur. Atque de calore spirituum, analogo ad prolongationem vitæ, jam inquisitum est.

68. De copia spirituum, ut non sint exuberantes et ebullientes, sed potius parci et intra modum (cum flamma parva non tantum prædetur, quantum magna) brevis inquisitio est.

69. Videtur ab experientia comprobari, quod diæta tenuis et fere Pythagorica, vel ex regulis severioribus vitæ monasticæ, vel ex institutis eremitarum, quæ necessitatem et inopiam habebant pro regula, vitam reddat longævam.

70. Huc pertinent potus aquæ, stratum durum, aër frigidus, victus tenuis, (scilicet ex oleribus, fructibus, atque carnibus et piscibus conditis et salitis, potius quam recentibus et calidis,) indusium cilicii, crebra jejunia, crebræ vigiliæ, rarae voluptates sensuales, et hujusmodi: omnia enim ista minuunt spiritus, cosque redigunt ad quantitatem eam, quæ tantummodo vitæ muniis sufficiat; unde minor fit deprædatio.

71. Quod si diæta fuerit hujusmodi rigoribus et mortificationibus paulo benignior, sed tamen semper æqualis, et sibi constans, eandem opem præstat;

etenim etiam in flammis videmus, flammam nonnihil majorem (modo fuerit constans et tranquilla) minus absumere ex fomite suo, quam flamma minor agitata, et per vices intensior et remissior: id quod plane demonstravit regimen, et diæta Cornari Veneti, qui bibit et edit tot annos ad justum pondus; unde centesimum annum viribus et sensibus validus superavit.

72. Etiam videndum est, ne corpus, quod plenius nutritur, neque per hujusmodi (quales diximus) diætas emaciatur, veneris usum tempestivum omittat; ne spiritus nimis turgeant, et corpus emolliant et destruant. Itaque de copia spiritus moderata, et quasi frugali, jam inquisitum est.

73. Sequitur inquisitio de frænatione motus spiritus; motus enim manifestò eum attenuat et incendit. Illa frænatio fit tribus modis: per somnum; per evitationem laboris vehementis, aut exercitii nimii, denique omnis lassitudinis; et per cohibitionem affectuum molestorum. Ac primo de somno.

74. Fabula habet Epimenidem in antro plures annos dormivisse, neque alimento eguisse, cum spiritus inter dormiendum minus depascat.

75. Experientia docet animalia quædam (qualia sunt sorices et vespertiliones) in quibusdam locis occlusis per integram hiemem dormire; adeo somnus deprædationem vitalem compescit; quod etiam facere putantur apes et fuci, licet quandoque a melle destituti: itidem papiliones et muscæ.

76. Somnus post prandium, ascendentibus in caput vaporibus non ingratis (utpote primis roribus ciborum) spiritibus prodest, sed ad alia omnia, quæ ad sanitatem pertinent, gravis est et noxius; attamen in extrema senectute eadem est ratio cibi et somni; quia frequens esse debet et refectio et dormitio, sed brevis et pusilla: quinetiam ad ultimam metam senectutis mera quies et perpetuus quasi decubitus prodest, præsertim temporibus hiemalibus.

77. Verum ut somnus moderatus ad prolongationem vitæ facit, ita multo magis, si sit placidus et non turbidus.

78. Somnum placidum conciliant, viola, lactuca, (præsertim cocta) syrupus e rosis siccis, crocus, melissa, poma in introitu lecti, offa panis ex vino malvatico, præsertim infusa prius rosa muscatella: itaque utile foret conficere aliquam pilulam, vel aliquem haustum parvum ex hujusmodi rebus, eoque uti familiariter. Etiam ea quæ os ventriculi bene claudunt, ut semen coriandri præparatum, cotonea, et pyra fragrantia assata, somnum inducunt placidum: ante omnia, juvenili ætate, et maxime iis, qui habent ventriculum satis fortem, prodest haustus bonus aquæ puræ, crudæ, in introitu lecti.

Mandatum. De cctasi voluntaria, sive procurata, atque de cogitationibus defixis et profundis, (modo sint absque molestia,) nihil habeo comperti; faciunt proculdubio ad intentionem, et densant spiritus, etiam potentius quam somnus: cum sensus æque, aut magis sopiant et suspendant; de illis inquiratur ulterius. Atque de somno hactenus.

79. Quatenus ad motum et exercitia; lassitudo nocet, atque motus et exercitatio, quæ est nimis celeris et vclox, quales sunt cursus, pila, gladiatoria, et similia: et rursus cum impetus extenditur ad ultimas vires et nixus, quales sunt saltus, lucta, et similia. Certum enim est, spiritus in angustiis positos, vel per pernicitatem motus, vel per ultimos nixus, fieri postea magis acres et prædatorios. Ex altera parte exercitia, quæ satis fortem cient motum, sed non nimis celerem, aut ad ultimas vires, (quales sunt saltatio, sagittatio, equitatio, lusus globorum, et similia,) nihil officiunt, sed prosunt potius.

Veniendum jam ad affectus et passiones animi, et videndum, qui ex ipsis ad longævitatem sint noxii, qui utiles.

80. Gaudia magna attenuant et diffundunt spiritus, et vitam abbreviant: lætitia familiaris roborat spiritus, evocando eos, nec tamen exsolvendo.

81. Impressiones gaudiorum sensuales, malæ; ruminationes gaudiorum in memoria, aut prehensiones eorum ex spe vel phantasia, bonæ.

82. Magis confortat spiritus gaudium pressum et parce communicatum, quam gaudium effusum et publicatum.

83. Mœror et tristitia, si metu vacet, et non nimium angat, vitam potius prolongat: spiritus enim contrahit, et est condensationis genus.

84. Metus graviores vitam abbreviant: licet enim et mœror et metus spiritum uterque angustiet; tamen in mœrore est simplex contractio; at in metu, propter curas de remedio, et spes intermistas, fit æstus et vexatio spirituum.

85. Ira compressa est etiam vexationis genus; et spiritum corporis succos carpere facit; at sibi permissa et foras prodiens, juvat; tanquam medicamenta illa, quæ robustum inducunt calorem.

86. Invidia pessima est, et carpit spiritus, atque illi rursus corpus; eo magis, quod fere perpetua est, nec agit (ut dicitur) festos dies.

87. Misericordia ex malo alieno, quod in nos ipsos cadere non posse videtur, bona; quæ vero similitudine quadam potest reflecti in miserantem, mala, quia excitat metum.

88. Pudor levis minime officit, cum spiritus paululum contrahat et subinde effundat; adeo ut verecundi diu (ut plurimum) vivant; at pudor ex ignominia magna, et diu affligens, spiritus contrahit, usque ad suffocationem, et est perniciosus.

89. Amor, si non fuerit infelix et nimis saucians, ex genere gaudii est; et easdem subit leges, quas de gaudio posuimus.

90. Spes omnium affectuum utilissima est, et ad prolongationem vitæ plurimum facit; si non nimium sæpe intercidat, sed phantasiam boni intuitu pascat: itaque qui finem aliquem, tanquam metam vitæ, figunt et proponunt; et perpetuo et sensim in voto suo proficiunt; vivaces ut plurimum sunt; adeo ut, cum ad culmen spei suæ venerint, nec habeant quod amplius sperent, fere animis concidant, nec diu superstites sint; ut spes videatur tanquam gaudium foliatum, quod in immensum extenditur, sicut aurum.

91. Admiratio, et levis contemplatio, ad vitam prolongandam maxime faciunt; detinent enim spiritus in rebus, quæ placent, nec eos turbare, aut inquiete et morose agere sinunt: unde omnes con-

templatores rerum naturalium, qui tot et tanta habebant, quæ mirarentur, (ut Democritus, Plato, Parmenides, Apollonius,) longævi fuerunt: etiam rhetores, qui res degustabant tantum et potius orationis lumen quam rerum obscuritatem sectabantur, fuerunt itidem longævi; ut Gorgias, Protagoras, Isocrates, Seneca: atque certe quemadmodum senes plerumque garruli, et loquaces sunt; ita et loquaces sæpissime senescunt: indicat enim levem contemplationem, et quæ spiritum non magnopere stringat aut vexet: at inquisitio subtilis, et acuta, et acris vitam abbreviat; spiritum enim lassat et carpit.

Atque de motu spirituum per animi affectus hæc inquisita sint; subjungemus autem quasdam alias observationes generales circa spiritus, præter superiores, quæ non cadunt in distributionem præcedentem.

92. Præcipuæ curæ esse debet, ut spiritus non exsolvantur sæpius; solutionem enim præcedit extenuatio, neque spiritus semel extenuatus ita facile se recipit et densatur: exsolutio autem fit per nimios labores; nimis vehementes affectus animi; nimios sudores; nimias evacuationes; balnea tepida; et intemperatum aut intempestivum usum veneris; etiam nimias curas et solicitudines et expectationes anxias; denique per morbos malignos; et dolores et cruciatus corporis graves: quæ omnia, quantum fieri potest, (ut etiam medici vulgares monent,) evitanda sunt.

93. Spiritus et consuetis delectantur et novis. Mirum autem in modum facit ad conservandum vigorem spirituum, ut nec consuetis utamur ad satietatem, nec novis ante appetitum vividum et strenuum. Utique et consuetudines abrumpendæ sunt judicio quodam et cura, antequam perveniant ad fastidium; et appetitus ad nova ad tempus cohibendus, donec fiat fortior et alacrior. Atque insuper vita, quoad fieri potest, ita instituenda, ut multas et varias habeat redintegrationes, neque perpetuo in iisdem versando spiritus torpeant: licet enim non male dictum sit a Seneca, "Stultus semper incipit vivere," tamen illa stultitia, ut et aliæ quamplurimæ, longævitati prodest.

94. Circa spiritus observandum est, (etsi contrarium fieri consueverit,) ut quando percipiant homines spiritus suos esse in statu bono, et placido, et sano, (id quod ex tranquillitate animi et lætitia datur perspici,) eos foveunt, nec mutent; sin in statu inquieto et maligno (id quod ex tristitia, pigritia, atque alia indispositione animi apparebit) eos subinde obruant et alterent. Continentur autem spiritus in eodem statu per cohibitionem affectuum, temperamentum diætæ, abstinentiam a venere, moderationem a labore, otium mediocre: alterant autem et obruunt spiritus contraria istis; scilicet, affectus vehementes, epulæ profusæ, venus immoderata, labores ardui, studia intensa et negotia. Atqui consueverunt homines, cum læti sunt et sibi maxime placent, tum epulas, venerem, labores, contentiones, negotia, maxime sequi et affectare. Quod si quis longitudini vitæ consulere velit, contrario modo (quod mirum dictu) se gerere debet; spiritus enim bonos fovere et continuare, male dispositos exhaurire et mutare, oportet.

95. Non inepte ait Ficinus, senes debere ad confortationem spirituum suorum, acta pueritiæ suæ et adolescentiæ sæpe recordari et ruminare. Certa recreatio est senibus singulis, tanquam peculiaris, recordatio talis. Itaque dulce est hominibus societatem habere eorum, qui olim una educati fuerant, et loca ipsa educationis suæ invisere. Vespasianus autem huic rei tantum tribuebat, ut eum esset imperator nullo modo animum inducere potuisset, ut ædes paternas, licet humiles, mutaret; ne aliquid deperiret consuetudini oculorum et memoriæ pueritiæ suæ; quinetiam in scypho quodam aviæ suæ ligneo, cum labro argenteo, diebus festis potabat.

96. Illud ante omnia spiritibus gratum est; ut fiat progressus continue in benignius. Itaque eo modo est instituenda juventus et ætas virilis, ut senectuti nova solatia relinquantur; quorum præcipuum sit otium moderatum. Itaque sibi ipsi manus inferunt senes honorati, qui in otium non secedunt: cujus rei insigne reperitur exemplum in Cassiodoro; qui tanta apud reges Italiæ Gothos auctoritate pollebat, ut instar animæ esset erga eorum negotia; postea autem fere octogenarius in monasterium se recepit, ubi non ante centesimum demum annum vitum clausit. At huic rei duæ cautiones adhibendæ sunt; una, ut non expectent donec corpus omnino confectum sit et morbidum: etenim in hujusmodi corporibus omnis mutatio, licet in benignius, mortem accelerat: altera, ut otio plane inerti se minime dedant, sed habeant aliquid quod cogitationes et animum ipsorum placide detinere possit; in quo genere, præcipua oblectamenta sunt literæ, deinde studia ædificandi et plantandi.

97. Postremo eadem actio, contentio, labor libenter susceptus et cum bona voluntate, spiritus recreat; cum aversatione autem et ingratiis, spiritus carpit et sternit: itaque ad longævitatem confert, si quis arte talem vitam instituat, quæ libera sit, et ad arbitrium suum traducatur; aut tale obsequium animo suo conciliaverit, ut quicquid a fortuna imponatur, eum potius ducat quam trahat.

98. Neque illud omittendum ad regimen affectuum; ut præcipua cura adhibeatur oris ventriculi, maxime ne sit relaxatum nimis; quia plus dominatur illa pars super affectus, præsertim quotidianos, quam aut cor aut cerebrum; exceptis tantummodo iis, quæ fiunt per potentes vapores, ut in ebrietate et melancholia.

99. De operatione super spiritus, ut juveniles maneant et revirescant, hæc inquisita sunt: quod eo diligentius præstitimus, quod de his operationibus, potiori ex parte, magnum est apud medicos et alios auctores silentium: maxime autem, quia operatio super spiritus eorumque recrudescentiam ad prolongationem vitæ est via maxime proclivis et compendiaria: propter duplex scilicet compendium; alterum, quod spiritus compendio operetur super corpus; alterum, quod vapores et affectus compendio operentur super spiritus; adeo ut hæc finem petant, quasi in linea recta; cætera magis per circuitum.

II.

OPERATIO SUPER EXCLUSIONEM AERIS.

1. Exclusio aëris ambientis ad diuturnitatem vitæ duplicitor innuit. Pri- Historia.

mo, quod maxime omnium, post spiritum innatum, aër extrinsecus (utcunque spiritum humanum quasi animet, et ad sanitatem plurimum conferat) succos corporis deprædatur, et desiccationem corporis accelerat: itaque exclusio aëris ad longitudinem vitæ confert.

2. Alter effectus, qui sequitur exclusionem aëris, subtilior multo est et profundior; scilicet quod corpus occlusum et non perspirans spiritum inclusum detinet, et in duriora corporis vertit; unde spiritus ea emollit et intenerat.

3. Hujus rei explicata est ratio in desiccatione inanimatorum; atque est axioma quasi infallibile, quod spiritus emissus corpora desiccat; detentus colliquat et intenerat: atque illud insuper simul assumendum, quod calor omnis proprie attenuat et humectat, et per accidens tantum contrahit et desiccat.

4. Vita in antris et speluncis, ubi aër non recipit radios solis, possit facere ad longævitatem; aër enim per se ad prædationem corporis non multum potest, nisi calore excitatus. Certe si quis memoriam rerum recolat, ex pluribus reliquiis et monumentis constare videtur, fuisse hominum magnitudines et staturas longe iis, quæ postea fuerunt, grandiores; ut in Sicilia et aliis nonnullis locis. Istiusmodi autem homines in speluncis plerumque ætatem degebant: atqui diuturnitas ætatis, et amplitudo membrorum, habent nonnihil commune. Etiam antrum Epimenidis inter fabulas ambulat. Suspicor etiam vitam anachoretarum columnarium simile quippiam fuisse vitæ in antris; quippe ubi radii solis parum penetrabant, neque aër magnas mutationes aut inæqualitates recipere poterat. Illud certum, utrunque Simeonem, Stylitam, et Danielem, et Sabam, atque alios anachoretas columnares, admodum longævos fuisse. Etiam anachoretæ moderni, intra muros aut columnas septi et clausi, longævi sæpius reperiuntur.

5. Proxima vitæ in antris est vita in montibus. Quemadmodum enim in antra calores solis non penetrant; ita in fastidiis montium, reflexione destituti, parum possunt. Accipiendum autem hoc est de montibus, ubi aër limpidus est et purus; scilicet ubi propter ariditates vallium nebulæ et vapores non ascendunt; quod fit in montibus qui Barbariam cingunt; ubi etiam hodie vivunt sæpenumero ad annos centum et quinquaginta, ut jam antea notatum est.

6. Atque hujusmodi aër antrorum aut montium, ex sua natura propria, parum, aut nihil deprædatur: at aër, qualis est noster, cum sit propter calores solis prædatorius, quantum fieri potest, a corpore est excludendus.

7. Aër vero prohibetur et excluditur duobus modis: primo, si claudantur meatus; secundo, si oppleantur.

8. Ad clausuram meatuum faciunt, ipsius aëris frigiditas: nuditas cutis, ex qua illa induratur; lavatio in frigida; astringentia cuti applicata, qualia sunt, mastiche, myrrha, myrtus.

9. Multo magis huic operationi satisfiet per balnea, sed raro usurpata, (præsertim temporibus æstivis,) quæ constent ex aquis mineralibus astringentibus, quæ tuto exhiberi possunt; qualcs sunt chalybeatæ et vitriolatæ; hæ enim cutem potenter contrahunt.

10. Quod ad oppletionem attinet; pigmenta, et hujusmodi spissamenta unctuosa, atque (quod commodissime in usu potest esse) oleum et pinguia, non minus corporis substantiam conservant, quam pigmenta in oleo et vernix ligna.

11. Britones antiqui corpus glasto pingebant, et fuerunt admodum longævi; quemadmodum et Picti, qui inde etiam nomen traxisse a nonnullis putantur.

12. Hodie se pingunt Brasilienses et Virginienses, qui sunt (præsertim illi priores) admodum longævi; adeo ut quinque abhinc annis patres Galli nonnullos convenerint, qui ædificationem Fernamburgi, annis abhinc centum et viginti, ipsi ad tunc virilis ætatis, meminissent.

13. Joannes de Temporibus, qui dicitur ad trecentesimum annum ætatem produxisse, interrogatus quomodo se conservasset; respondisse fertur, "Extra, oleo; intus, melle."

14. Hiberni, præsertim sylvestres, etiam adhuc sunt valde vivaces; certe aiunt, paucis abhinc annis comitissam Desmondiæ vixisse ad annum centesimum quadragesimum, et ter per vices dentiisse. Hibernis autem mos est se nudos ante focum butyro salso et veteri fricare et quasi condire.

15. Idem Hiberni in usu habuerunt lintea et indusia croceata; quod licet ad arcendam putrefactionem introductum fuerat, tamen (utcunque) ad vitæ longitudinem utile fuisse existimamus; nam crocus ex omnibus, quæ novimus, ad cutem et confortationem carnis est res optima; cum et notabiliter astringat, et habeat insuper oleositatem et calorem subtilem sine ulla acrimonia. Equidem memini quendam Anglum, ut vectigalia supprimeret, croci saccum cum transfretaret, circa stomachum portasse, ut lateret; eumque, cum antea ex mari gravissime ægrotare solitus esset, optime tunc valuisse, nec nauseam ullam sensisse.

16. Hippocrates jubet vestes ad cutem hieme puras portare, æstate sordidas et oleo imbutas; hujus ratio videtur, quod per æstatem spiritus exhalant maxime; itaque pori cutis opplendi sunt.

17. Ante omnia igitur usum olei, vel olivarum, vel amygdalini dulcis, ad cutem ab extra unguendam, ad longævitatem conducere existimamus; eaque unctio debet fieri singulis auroris, cum exitur e lecto, cum oleo, in quo admisceatur parum salis nigri et croci. Unctio autem levis debet esse, ex lana aut spongia molliori, neque quæ stillet super corpus, sed cutem tantum intingat et inficiat.

18. Certum est liquores in majori quantitate, etiam oleosos, haurire nonnihil ex corpore; sed contra, parva quantitate imbibi a corpore: itaque levis aspersio facienda est, ut diximus; aut plane indusium ipsum oleo linisendum est.

19. Objici vero forte possit, istam unctionem ex oleo, quam laudamus, (licet apud nos in usu nonnquam fuerit, atque apud Italos in desuetudinem abierit,) olim quidem apud Græcos et Romanos familiarem fuisse et diætæ partem; neque tamen iis seculis homines magis fuisse longævos. Sed respondetur rectissime; oleum in usu fuisse tantum post balnea, nisi forte inter athletas; balnea autem ex calido operationi nostræ tanto contraria sunt, quanto unctiones congruæ; cum alterum meatus aperiat, alterum

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obstruat. Itaque balneum absque unctione sequenti pessimum; unetio absque balneo optima. Etiam ad delicias potius udhibebatur ista unctio, atque (si in optimum partem accipias) ad sanitatem; sed nullo modo in ordine ad vitam longævam; itaque simul adhibebantur unguenta pretiosa, quæ ud delicias grata, ad nostram intentionem noxia sunt, ob calorem; ut bene dixisse videatnr Virgilius:

"Nec casia liquidi corrumpitur usus olivi."

20. Innnctio ex oleo et hieme eonfert ad sanitatem, per exelusionem frigoris; et æstate, ad detinendos spiritus et prohibendam exsolutionem eorum, et arcendam vim aëris, quæ tune maxime est prædatoria.

21. Cum inunetio ex oleo operatio sit ad vitam longam fere potentissima; visum est addere cautiones, ne perielitetur valetudo: eæ quatuor suut, secundum quatuor ineommoda, quæ exinde seqni possint.

22. Primum ineommodum est, quod reprimendo sudores morbos indueere possit, ex humoribus illis excrementitiis: huie remedium adhibendum est ex purgationibus et clysteriis, ut evacuationi debite eonsulatur; certum enim est evaeuationem per sudores sauitati plerumque eonferre; longitudini vitæ offieere. Purgativa antem moderata in humores agunt, non in spiritus, quod faeit sudor.

23. Secundum incommodum est, qnod corpus ealefaeere possit et snbinde inflammare; spiritus enim occlusus nec perspirans, ferventior est: huie incommodo occurritur, si diæta nt plurimum vergat ad frigidum, et sumantur propria quædam ad refrigerandum per vices: de quibus mox in operatione super sanguinem inquiremus.

24. Tertium est, quod caput gravare possit; omnis enim oppletio extrinsecus repercutit vupores, et eos mittit versus caput: huie incommodo omnino occurritur per eathartica, præsertim clysteria; et elaudendo os ventriculi fortiter eum stypticis; et pectendo et fricando caput, etiam enm lixiviis idoneis, ut aliquid exhulet; et non omittendo exercitationem bonam, et qualem eonvenit, ut etiam per cntem nonnihil perspiret.

25. Quartum ineommodnm subtilius est malum; videlicet qnod spiritus, detentus per elausuram pororum, videatur posse seipsum nimis multiplicure; quia eum parum evolet, et continno spiritus novus generetur, nimium increscit spiritus, et sie corpns etiam plus prædari possit: verum hoc non prorsus ita se habet; nam spiritus omnis conelnsus hebes fit, (quando quidem ventiletur motu spiritus, ut et flamma,) ideoque minus aetivus est, et minus sui generans; calore eerte auctus, (ut et flamma,) sed motn piger: sed et huie incommodo remedinm adhiberi possit a frigidis oleo quandoque admistis; qualia sunt rosa et myrtus; nam ealidis omnino abstinendum, nt dictum est de easia.

26. Neque inutilis est applicatio ud corpns vestium, quæ et ipsæ in se habent aliquid unetuosi sive oleosi, non aqnosi: illæ enim exhaurient eorpus minus; quales sunt ex lana, potius quam ex liuo: certe manifestum est in spiritibus odorum, qnod si pouus pulveres odoratos inter lintea, multo citius virtutem perdunt, quum inter lanea. Itaqne linten tactu et munditie jueundu; scd ad nostram operationem suspecta.

27. Hiberni sylvestres, cum ineipiunt ægrotare, nihil prius faciunt, quam ut lintea e stratis tullant, et in laneis pannis se convolvant.

28. Referunt nonnulli, se mugno sanitatis suæ eommodo laneia carmiuatis proxime ad cutem, sub indusiia suis, usos fuisse, tam ad braccas, quam ad corporalia.

29. Est et illud observandum, aërem eorpori assuetum minus illud deprædari, quam novum et subinde mutatum: itaque pauperes, qui in tuguriis suis intra proprios lares perpetuo vivunt, nee sedes mutant, sunt plerumque longæviores: veruntamen quoad alias operationes mntationem uëris (præsertim spiritibus non omnino inertibus) utilem esse judicamus; mediocritas autem adhibenda foret, quæ utrinque satisfaciat; illud fiet, si quatuor temporibus anni fiet per stata tempora mututio loci ad sedes idoneas; neque sint corpora aut in peregrinatione nimia, aut in statione. Atque de operatione per exclusionem aëris, et de evitanda vi ejus prædatoria, hæc dicta sint.

III.

OPERATIO SUPER SANOUINEM ET CALOREM SANOUIFICANTEM.

Historia.

1. Operationes duæ sequentes sunt operationibus duabus præcedentibus tanquam untistrophæ; atque iis respondent, quemadmodum passiva aetivis; præcedentes enim duæ id agunt, ut spiritus et aër aetionibus suis sint minus deprædantes; hæ vero, ut sanguis et suecus eorporis sint minus deprædabiles. Quoniam vero sanguis est irrigatio suecorum et membrorum, et præparatio ad ea; operationem super sanguinem primo loco eollocamus. Circa hanc operationem propouemus eonsilia numero pauca, sed vi valde effieacia: ea tria sunt.

2. Primo dubium non est, quin si sanguis sit aliqnunto frigidior, minus futurus sit dissipabilis: quoniam vero quæ per os sumuntur frigida, enm reliquis intentionibus haud paueis male eonveniunt; ideo optimum foret alia invenire, quæ non sunt cum istiusmodi incommodis complicata. Ea dno suut.

3. Prius hujusmodi est; adducantur in usum, idque maxime iu juventute, clysteria nihil omnino purgantia aut abstergentia; sed solummodo refrigerantia et nonnihil aperientia: probata sunt quæ fiunt ex succis lactueæ, portulaeæ, hepaticæ, etiam sedi majoris, et mueilaginis seminis psyllii, eum decoctione aliqua temperata aperiente, admisto aliquanto caphoræ: verum vergente ætate, omittatur sedum majus et portulaca, et substituantur sueei boraginis, et endiviæ, aut similium; atque retineantur clysteria hnjusmodi quantum fieri potest, ad horam scilieet, aut amplius.

4. Alterum est ejusmodi; in nsu sint, præsertim æstate, balnea aquæ dulcis et modiee admodum tepidæ, prorsus absque emollientibus, malva, mercuriali, lacte, et similibus; adhibeatur potius serum lactis recens in nonnulla quantitate, et rosa.

5. Verum, quod eaput rei est et novum, illud

præcipimus; ut ante balneationem inungatur corpus cum oleo, cum spissamentis; ut qualitas refrigerii excipiatur, aqua magis arceatur: neque tamen meatus corporis nimium occludantur: etenim cum frigus exterius corpus fortiter occludit, tantum abest ut promoveat infrigidationem, ut etiam eam prohibeat, et irritet calorem.

6. Similis est usus vesicarum, cum decoctionibus et succis refrigerantibus, applicatis circa inferiorem regionem corporis, videlicet sub costas, usque ad pubem; nam et hoc est genus balneationis, ubi corpus liquoris ut plurimum excluditur, refrigerium tantum excipitur.

7. Restat tertium consilium, quod non ad sanguinis qualitatem, sed ad substantiam ejus pertinet, ut reddatur magis firma et minus dissipabilis, et in quam calor spiritus minus agere possit.

8. Atque de usu limaturæ auri, aut auri foliati, aut pulveris margaritarum, gemmarum, et corallii, et similium, hodie nihil credimus, nisi quatenus præsenti operationi satisfaciant: certe, cum Arabes, et Græci, et moderni, iis rebus tantas virtutes tribuerint, non omnino nihil videatur esse in istis, quæ tot homines experti observarunt. Itaque missis phantasticis circa illas opinionibus, plane arbitramur, si universæ substantiæ sanguinis aliquid insinuari possit per minima, in quod spiritus et calor parum aut nihil agere possint, omnino id non tantum putrefactioni, sed etiam arefactioni obstiturum, et ad vitam prolongandam fore efficacissimum: in hoc tamen plures adhibendæ sunt cautiones: primo, ut fiat admodum exacta comminutio: secundo, ut hujusmodi dura et solida sint omnis malignæ qualitatis expertia, ne cum in venis dispergantur et lateant, aliquid nocumenti inferant: tertio, ut nunquam sumantur cum cibis, nec ita excipiantur, ut diu hæreant, ne generent periculosas obstructiones circa mesenterium: quarto, ut rarus sit eorum usus, ne coëant et cumulentur in venis.

9. Itaque modus excipiendi sit, stomacho jejuno, in vino albo, cui admistum sit parum olei amygdalini, et fiat corporis exercitatio super haustum eorum.

10. Simplicia autem, quæ operationi huic satisfaciant, possint esse loco omnium; aurum, margaritæ, et corallium; metalla enim omnia, præter aurum, non sunt absque maligna qualitate in volatili ipsorum: neque etiam tam exquisite comminuuntur, quam aurum foliatum; gemmæ autem translucidæ, et tanquam vitreæ, minus nobis placent (ut et antea diximus) propter suspicionem corrosionis.

11. At nostro judicio et tutior et efficacior foret usus lignorum, in infusionibus et decoctionibus; satis enim in iis possit esse ad firmitudinem sanguinis, neque tamen simile periculum est ab obstructione: præcipue autem, quia possunt sumi in cibo et potu; unde facilius ingressum reperient in venas, nec deponentur in fæcibus.

12. Ligna ad hoc idonea sunt, santalum; quercus; et vitis; ligna enim calidiora, aut aliqua ex parte resinosa, rejicimus; possint tamen adjici caules siccæ et lignosæ roris-marini; cum frutex sit ros-marinus et ætatem multarum arborum æquet; etiam hederæ caules siccæ et lignosæ, sed ea quantitate, ut saporem non reddant ingratum.

13. Sumantur vero ligna aut in jusculis decocta, aut infusa in mustum, aut cervisiam, antequam sedeat: in jusculis autem (ut fit in guaiaco et similibus) semper infundantur diu, antequam decoquantur, ut firmior pars ligni, et non tantum ea quæ leviter hæret, eliciatur: fraxinus autem, licet ad pocula adhibeatur, nobis suspecta est. Atque de operatione super sanguinem hæc inquisita sint.

IV.

OPERATIO SUPER SUCCOS CORPORIS.

Historia.

1. Duo sunt corporum genera (ut in inquisitione de inanimatis jam dictum est) quæ difficilius consumuntur: dura et pinguia; ut cernitur in metallis et lapidibus; atque in oleo et cera.

2. Operandum itaque est, ut succus corporis sit subdurus; atque etiam ut sit subpinguis, aut subroscidus.

3. Quatenus ad duritiem, ea efficitur tribus modis: natura alimenti firma; frigore condensante cutem et carnes; et exercitatione succos fermentante et compingente, ne sint molles et spumosi.

4. Quatenus ad naturam alimenti, talis esse debet, ut sit minus dissipabilis; qualia sunt caro bovina, caro suilla, caro cervina, etiam caro caprearum, hordorum, cygnorum, et anserum, et palumbium sylvestrium, (præsertim si hujusmodi carnes fuerint modice salitæ,) pisces itidem saliti et sicci; etiam caseus subvetus, et hujusmodi.

5. Quoad panem autem, avenaceus, aut etiam paululum pisatus, aut secalicius, aut hordeaceus, solidior est quam ex frumento; atque etiam in pane frumentaceo solidior qui paulo plus habet ex furfure, quam qui purioris est pollinis.

6. Oreades, qui piscibus vescuntur salitis, atque generaliter ichthyophagi, longævi sunt.

7. Monachi et eremitæ, qui parce et sicco alimento pascebantur, fuerunt ut plurimum longævi.

8. Etiam aqua pura, in potu frequentur usurpata, reddit succos corporis minus spumosos; cui si, propter spiritus hebetudinem, (qui proculdubio in aqua est parum penetrativus,) admisceatur aliquid nitri, utile esse existimamus. Atque de firmitudine alimenti hactenus.

9. Quatenus ad condensationem cutis et carnium per frigus; vivaciores fere sunt, qui sub dio vivunt, quam qui sub tecto; atque qui in regionibus frigidis, quam qui in calidis.

10. Vestes nimiæ, sive in lectis, sive portatæ, corpus solvunt.

11. Lavatio corporis in frigida, bona ad longitudinem vitæ; usus balneorum tepidorum malus; de balneis autem ex aquis astringentibus mineralibus superius dictum est.

12. Quatenus ad exercitationem; vita otiosa manifesto reddit carnes molles et dissipabiles: exercitatio autem robusta (modo absint nimii sudores aut lassitudines) duras et compactas: etiam exercitatio intra aquas frigidas, qualis est natatio, valde bona; atque generaliter exercitatio sub dio, melior quam sub tecto.

13. De fricationibus (quod est exercitationis ge-

nus) tamen, quia alimenta magis evocant quam indurant, postea suo loco inquiremus.

14. Jam vero cum de duritie succorum dictum sit, veniendam ad oleositatem sive roscidationem ipsorum; quæ perfectior et potentior est intentio, quam indauatio; quia non habet incommodam, neque malum complicatum: omnia enim, quæ ad duritiem succorum pertinent, ejusmodi sunt, ut eum alimenti absumptionem prohibeant, etiam ejusdem reparationem impediant; unde fit ut diuturnitati vitæ eadem et prosint et obsint; at quæ ad roscidationem succorum pertinent, ex utraque parte juvant; cum reddant alimentum et minus dissipabile, et magis reparabile.

15. Cum vero dicimus, quod succus corporis debeat fieri roscidus et pinguis, notandum est, hoc nos non intelligere de pinguedine, aut adipe manifesto, sed de rore perfuso et (si placet) radicali in ipsa corporis substantia.

16. Neque rursus existimet quispiam oleum, aut pinguia ciborum, aut medullas, similia sibi generare, atque intentioni nostræ satisfaceere; neque enim quæ perfecta semel sunt, retro aguntur; sed talia debent esse alimenta, quæ post digestionem et maturationem tum demum oleositatem in succis ingenereat.

17. Neque rursus existimet quispiam oleum, et pingue coaeervatum, et simplex, difficilis esse dissipationis; in mistione autem non eandem retinere naturam; etenim quemadmodum oleum per se multo serius consumitur quam aqua, ita etiam in papyro, aut sudario, diutius hæret, et tardius desiccatar; ut prius notavimus.

18. Ad irrorationem corporis melius faciunt cibi assati, aut furno cocti, quam elixi: atque omnis præparatio ciborum cum aqua incommoda est; quinetiam et oleum copiosius elici videmus ex corporibus siccis, quam ex humidis.

19. Generaliter ad irrorationem corporis prodest multus usus dulcium, sacchari, mellis, amygdalarum dulcium, pinearum, pistaciorum, daetylorum, uvarum passarum, uvarum Coriuthi, ficuum, et hujusmodi: contra, omnia acida, et nimium salsa, et nimium acria, sunt generationi succi roscidi opposita.

20. Neque Manichæis eorumque diætæ favere existimabimur, si semina quæque, et nucleos, et radices in cibis aut eorum condimentis frequeutia esse debere dicamus; quandoquidem omnis panis (panis autem ciborum firmamentum est) aut ex semiuibus est, aut ex radicibus.

21. Ante omuia vero ad irrorationem corporis maxime facit natura potus, qui ciborum vehiculum est: itaque ia usu sint potus illi, qui absque omni acrimonia, aut acediue, subtiles tamen sint, quales sunt vina (ut ait anus apud Plautum) "vetustate edentula," et cervisia ejusdem generis.

22. Hydromel (ut arbitramur) non foret malum, si fuerit forte et vetus; attamen quoniam omne mel habet aliquid aeutum (ut patet ex acerrima illa aqua, quam chemici ex eo extrahunt, quæ etiam metalla solvit) melius foret, si fieret similis potio ex saccharo, uon infuso leviter, sed ita incorporato, quemadmodum mel solet esse in hydromelite, et quæ habeat vetustatem anni aut sex mensium; uude nqua cruditatem deponat, et saccharum subtilitatem nequirat.

23. Atque vetustas vini aut potus hoc habet, quod subtilitatem generat in partibus liquoris, acrimoniam in spiritibus; quorum primum utile, secundum noxium; itaque ad hanc complicationem enodandam mittatur in dolium, priusquam resederit uonuihil viaum a musto, caro suilla, aut cervina bene cocta, ut habeant spiritas vini, quod ruminent et mandant, atque inde mordacitatem suam deponant.

24. Similiter si recipiat cervisia non solum grana tritici, hordei, avenarum, pisarum, etc. sed etiam partem (puta tertiam) ex radicibus aut pulpis pinquibus (qualia sunt radices potadi, medullæ artiplicis, radiees bardanæ, aut aliæ radiees dulces et esculentæ) utiliorem fore potum ad longævitatem existimamus, quam cervisiam ex granis tantum.

25. Etiam quæ in partibus suis valde tenuia sunt, et nihilominus nulla prorsus sunt acrimouia aut mordacitate, utilia sunt in condimentis ciborum; qualem virtutem inesse deprebeudimus in paueis quibusdam ex floribus; floribus scilicet hederæ, qai in aceto infusi etiam gustui placent; floribus calendulæ, qui in usu sunt in brodiis; et floribus betonicæ. Atque de operatione super succos corporis hæc inquisita sunt.

V.

OPERATIO SUPER VISCERA AD EXTRUSIONEM ALIMENTI.

1. Quæ viscera illa principalia, quæ coneoctionis fontes sunt, stomachum, hepar, cor, cerebrum, ad funetiones suas probe exercendas confortant, (unde alimenta in partes distribauntur, spiritus sparguntur, atque inde reparatio corporis totius transigitur,) a medicis, atque eorum deseriptis et consiliis, petenda sunt. Historia.

2. De splene, felle, renibus, meseuterio, iliis, et pulmouibus, non loquimur; sunt enim membra ministrantia principalibus; atque cum de sanitate tractatur, in eonsiderationem vel præcipuam quandoque veniunt; quia patiuntur singula suos morbos, qui uisi curentar, etiam in viscera principalia incurrunt: quatenus vero ad prolongationem vitæ, et reparationem per alimenta, et retardationem atrophiæ seuilis, si concoctiones et principalia illa viscera bene se habeant, cætera maxima ex parte ad votum sequentur.

3. Atqae ex medicorum libris, qui de quatuor membrorum principalium confortatione et commodis sermones faciunt, decerpenda sunt ea unicuique, quæ pro ratione status corporis proprii in diætam et regimen vitæ transferri poterint: etenim sanitas medicinis temporalibus plerumque indiget; at diuturnitas vitæ ex vietus ratione, et constanti medicinarum juvantium serie, speranda est: nos vero pauca, eaque selecta et optima proponemus.

4. Stomachum, (qui, ut aiunt, est paterfamilias, et cujus robur ad reliquas coneoctiones est fundamentale,) ita munire decet et confirmare, ut sit absque intemperie calidus; deinde astrictus, non laxus; etiam mundus, non humorum fastidiis oppressus; et nihilominus (eum ex seipso, potius quam ex venis, nutriatur) minime prorsus inanis aut jejunus; postre-

mo in appetitu servandus est, quia appetitus digestionem acuit.

5. Miramur quomodo illud, calidum bibere (quod apud antiquos in usu fuit) in deauetudinem abierit; novimus certe medicum admodum celebrem, qui in prandio et cœna jusculum etiam præcalidum avide ingerere solebat, et paulo post optare ut regestum esset; " Neque enim mihi jusculo opus est, (inquit,) sed calido tantum."

6. Omnino utile arbitramur primam potionem, sive vini, sive cervisiæ, sive potus alterius, (cui quis insuevit,) in cœna semper calidam exhiberi.

7. Vinum extinctionis auri utile arbitramur semel in mensa; non quod aurum aliquid virtutis ad hoc largiri credamus, sed quia extinctionem omnem metallicam in aliquo liquore astrictionem potentem indere novimus: aurum autem deligimus, quia præter illam (quam optamus) astrictionem, nil aliud metallicæ impressionis post se relinquit.

8. Offaa panis in vino media mensa utiliores, quam ipsum vinum esse judicamus; præsertim si vino, cui offa intingatur, rosmarinus et cortex citri fuerint infusi; idque cum saccharo, ut tardius labatur.

9. Usum cotoneorum ad stomachi robur utilem esse certum est: melius tamen adhiberi judicamus in succis depuratis, cum saccharo (quos myvas vocant) quam in carnibus ipsorum, quia stomachum nimis gravant: illæ vero myvæ post mensam, simplices; at ante mensam, cum aceto utilissime sumuntur.

10. Utilia stomacho sunt præ cæteris simplicibus rosmarinus, enula, mastiche, absinthium, salvia, mentha.

11. Pilulas ex aloë, et mastiche, et eroco, præsertim temporibus hiemalibus, ante prandium sumptas, probamus; ita tamen ut aloë non tantum succo rosarum multis vicibus abluta sit, sed etiam in aceto, (in quo dissolutum fuerit tragacanthum,) et postea in oleo amygdalino dulci et recenti, ad aliquot horas macerata sit, antequam formetur in pilulas.

12. Vinum aut cervisia infusionis absinthii, cum modico enulæ et santali citrini, recte per vicea adhibetur; atque hoc hieme potius.

13. At æstate, haustus ex vino albo, cum aqua fragariæ diluto, in quo vino pulveres exquisiti perlarum, et testarum canerorum fluviatilium, et (quod mirum fortasse videatur) parum cretæ, fuerint infusa, stomachum optime recreat et roborat.

14. At generaliter omnia haustus matutinus (quales frequenter in usu sunt) refrigerantium (succorum, decoctionum, seri lactis, hordeaceorum, et similium) fugiendus est; nihilque prorsus immittendum stomacho jejuno, quod sit frigidum purum: Melius exhibebuntur res hujusmodi (si necessitas postulet) vel hora quinta post praadium, vel hora ona post leve jentaculum.

15. Jejunia frequentia mala sunt ad longævitatem; quinetiam sitis quæcunque evitanda, et servandus stomachus satis mundus, sed perpetuo quasi humidus.

16. Oleum olivarum recens et bonum, in quo Mithridatii nonnihil dissolutum fuerit, inunctum spinæ dorsi, ex adverso oris stomachi, stomachum mirum in modum confortat.

17. Saeculus ex floccis carminatis, infusis in vinum austerum, in quod infusa fuerint myrtus et cortex citri et parum croci, super stomachum perpetuo gestari potest. Atque de stomachum confortantibus hactenus; cum etiam haud pauca ex his, quæ aliis operationibus inserviunt, ad hoc etiam juvent.

18. Jecori, si a torrefactione sive desiccatione, atque ab obstructione, immune servetur, nil ultra opus est: etenim exsolutio illa, quæ aquositates generat, morbus prorsus est; at reliqua duo etiam senectus obrepens inducit.

19. Huc pertineat vel maxime ea, quæ in operatione super sanguinem descripta sunt; iis adjiciemus pauca admodum, sed electa.

20. Præcipue in usu sit vinum granatorum dulcium; aut si illud haberi non possit, succus ipsorum recens expressus; mane sumendus, cum aliquanto saccharo, et immisso in vitrum (in quod fit expressio) modico corticis citri recentis, et caryophyllis tribus aut quatuor integris: hocque usurpetur a Februario ad finem Aprilis.

21. In usum adducatur ante alias omnes herbas nasturtium; sed tamen pubescens, non vetus: usurpetur sive crudum, sive in jusculis, sive in potu; et post hanc cochlearia.

22. Aloë, quocunque modo abluta aut correcta, hepati noxia; itaque nunquam familiariter sumenda est. Rhabarbarum contra vitia hepati, modo tres adhibeantur cautiones: primo, ut sumatur ante cibum, ne desiccet nimis, aut vestigium stypticitatis relinquat: secundo, ut macceretur ad horam unam, aut duas, in oleo amygdalino recenti, cum aqua rosacea, antequam alias infundatur, aut detur in substantia: tertio, ut vicibus alternis sumatur, alias simplex, alias cum tartaro, aut parum salis nigri, ne leviora tantum asportet, et reddat massam humorum magis obstantem.

23. Vinum, aut decoctum aliquod chalybeatum, ter aut quater in anno sumi probo, ad obstructiones potentiores solvendas; ita tamen ut semper præcedat haustus duorum, aut trium cochlearium olei amygdalini dulcis recentis, et sequatur motus corporis, præsertim brachiorum et hypochondriorum.

24. Liquores dulcorati, idque cum pinguedine quadam, ad arcendam arefactionem et salsedinem et torrefactionem, et denique senilitatem jecoris, præcipue et plurimum possunt; præsertim si per vetustatem bene incorporentur; tales fiant ex fructibus et radicibus dulcibus; scilicet vina et potus ex uvis passis recentibus, jujubis, caricis, dactylis, pastinacis, bulbis sive potatis, et hujusmodi, cum admistione glycyrrhizæ quandoque; etiam potus ex granis Indicis (quæ maya vocant) cum mixtura dulcium, plurimum confert. Notandum est autem, intentionem præservationis jecoris in mollitie quadam et pinguedine longe potentiorem esse illa altera, quæ pertinet ad apertionem jecoris, quæ potius innuit ad sanitatem, quam ad diuturnitatem vitæ; nisi quod obstructio ea, quæ induxit torrefactionem, æque malitiosa est, ne aliæ arefactiones.

25. Radices cichorei, spinaciæ, betæ, a medullis purgatas, atque ad teneritudinem coctas in aqua, cum tertia parte vini albi, pro condimentis familiari-

bus cum oleo et aceto, lando; etiam gemmas, sive caules asparagi, pulpas artiplicis, et radices bardanæ, debitis modis elixas et conditas: et juscula (tempore veris) ex foliis pubescentibus vitium et herba viridi tritici. Atque de jecore muniendo hactenus.

26. Cor juvamentum suscipit maxime, atque nocumentum, ex aëre, quem spiramus; ex vaporibus; atque ex affectibus: atque complura ex iis, quæ de spiritibus supra dicta sunt, huc transferri possunt; indigesta autem moles cordialium apud medicos ad intentionem nostram parum valet: attamen, quæ venenorum malignitati occurrere deprehenduntur, ea demum ad muniendas cordis vires sano cum judicio adhiberi possunt; præsertim si sint ex eo genere, quod non tam propriam veneni naturam frangat, quam cor et spiritus in venenum insurgere faciat. Atque de cordialibus consule tabulam superius positam.

27. Aëris bonitas in locis experientia potius dignoscitur, quam signis. Optimum judicamus aërem spirare in locis æquis et planis, atque ex omni parte perflatilibus; si fuerit terra sicca, neque tamen prorsus arida, aut arenosa; quæque emittat serpillum et amaraci genus, et hinc inde caules mentæ campestris; quæque sit non prorsus rasa, sed arboribus nonnullis (ad umbram) sparsim consita; atque ubi rosa rubi spiret aliquid muscatellum et aromaticum: flumina si adsint, nocere potius arbitramur, nisi fuerint exigua admodum, et limpida, et glareosa.

28. Aërem matutinum certum est vespertino esse magis vitalem, licet ad delicias alter magis ametur.

29. Aërem a vento agitatum paulo leniore, aëre cœli sereni feliciorem esse arbitramur: optimus autem est zephyrus matutinus, et boreas postmeridianus.

30. Odores ad confortationem cordis præcipue utiles sunt; neque tamen ac si odor bonus esset aëris boni prærogativa. Certum enim est, quemadmodum inveniuntur aëres prorsus pestilentes, qui non tantum fœtent, quantum alii minus noxii; similiter inveniri e contra aëres saluberrimos et spiritibus amicissimos, qui aut prorsus sint inodori, aut ad sensum minus grati et fragrantes. Atque omnino, ubi degitur in aëre bono, odores per vices tantum repeti debent: odor enim continuus (licet optimus) spiritus nonnihil onerat.

31. Laudamus ante omnes alios (ut etiam superius innuimus) odores ex plantis vegetantibus et non avulsis, in aëre aperto exceptis; quales sunt ex violis, floribus caryophylli, (tam majoris quam minoris,) floribus fabarum, floribus tiliæ, floribus sive pulvisculo vitium, floribus madre-selve, floribus parietariæ luteæ; rosa muscatella, (nam cæteræ rosæ germinantes parce emittunt odores,) fragaria (præsertim moriente) rubo suavi, (præcipue ineunte vere,) mentha campestri, lavendula florente, atque in regionibus calidioribus, malo aurantio, citrio, myrto, lauro: itaque ambulatio aut sessio inter hujusmodi auras in usu esse debet.

32. Ad cordis juvamentum, odores refrigerantes calidioribus anteponimus; suffitus itaque matutinus, aut sub calores meridiei, optimus fuerit, ex æquis portionibus aceti, aquæ rosaceæ, et vini generosi, super laminam ferri quasi candentem fusorum.

33. Neque vero matri telluri libare nos quis existimet, si præcipiamus inter fodiendum, aut terram vertendam, vinum generosum superinfundi.

34. Aquam e floribus aurantiorum bonam, cum modica parte aquæ rosaceæ et vini fragrantis, etiam per nares attrahi, aut per syringem errhini more immitti, (sed rarius,) bonum est.

35. At masticatio (quamvis non habeamus betel) et detentio in ore eorum quæ spiritus fovent (licet assidua) utilis admodum est. Fiant itaque grana, aut pusilli pastilli ex ambra, et musco, et ligno aloës, et ligno Rhodio, et radice iridis, et rosa: atque formentur illa grana, aut pastilli, per aquam rosaceam, quæ per paululum balsami Indi transierit.

36. Vapores vero, qui ex rebus intro sumptis cor muniunt et fovent, hæc tria habere debent; ut sint amici, clari, et refrigerantes. Caliditas enim vaporum, mala; atque ipsum vinum, quod putatur habere vaporem solummodo calefacientem, non expers est prorsus qualitatis opiatæ. Claros autem vapores vocamus eos, qui plus habent ex vapore, quam ex exhalatione, neque sunt omnino fumei, aut fuliginosi, aut unctuosi, sed humidi et æquales.

37. Inter turbam inutilem cordialium pauca ad diætam in usu esse debent; loco omnium ambragrisia, et crocus, et granum kermes, ex calidioribus; atque radices buglossi et boraginis, atque mala citria, et limones dulces, et poma fragrantia, ex frigidioribus. Etiam eo (quo diximus) modo et aurum et margaritæ, non tantum intra venas, sed etiam in transitu et circa præcordia aliquid possunt; per refrigerium scilicet, absque aliqua noxia qualitate.

38. De lapide bezoar, ob multas probationes, virtuti ejus fidem non prorsus derogamus; sed omnino modus ejus sumptionis talis esse debet, ut facillime virtus ejus communicetur spiritibus. Itaque nec in jusculis, nec in syrupis, nec in aqua rosacea, aut hujusmodi, usum ejus probamus; sed tantum in vino, aut aqua cinnamomi, aut hujusmodi distillato, sed tenui, non calido aut forti.

39. De affectibus jam superius inquisitum est: illud tantum adjicimus, omne desiderium magnum et constans, et (ut loquuntur) heroicum, cordis virtutes roborare et ampliare: atque de corde hactenus.

40. Ad cerebrum quod attinet (ubi cathedra et universitas spirituum animalium residet) quæ superius inquisita sunt, de opio, et nitro, et subordinatis ad ipsa, et de conciliatione somni placidi, etiam huc aliquatenus spectant. Illud quoque certum, cerebrum tanquam in tutela stomachi esse; ideoque quæ stomachum confortant et muniunt, cerebrum per consensum juvant, atque huc similiter transferri debent. Adjiciemus pauca, tria externa, internum unum.

41. Balneationem pedum omnino in usu esse volumus, ad minus, semel in septimana; balneumque fieri ex lixivio, cum sale nigro, et salvia, chamæmelo, fœniculo, sampsucho, et costo, cum foliis angelicæ viridis.

42. Suffitum laudamus etiam quotidianum mane ex rore-marino arido, ramulis lauri siccis, et ligno aloës; nam gummi suavia caput gravant.

43. Cavendum prorsus, ne capiti per exterius admoveantur calida; qualia sunt aromata, non excepta

nuee moschata: etenim calida illa ad plantas pedum præcipitamus, ibiqne solnm applicari volumus. Unctionem vero capitis levem ex oleo, cum rosa et myrto, et parum salis et croci, laudamus.

44. Memores eorum, quæ de opiatis, et nitro, et similibus, ante proposnerimus, quæ spiritus tantopere deusant, non existimamus abs re fore, si semel diebus quatuordecim aecipiantur in brodio matutino grana tria vel quatuor eastorei, eum modico seminis angelicæ et ealami aromatici; qoæ et ipsa cerebrum roborant, et in densitate substantiæ spirituum (quæ ad vitæ longævitatem tam necessaria est) motus vivacitatem et vigorem excitant.

45. In confortativis quatnor viscerum principalium ea proposuimus, quæ et propria sunt, atque electa, atque iu diætam et regimen vitæ transferri tuto et eommode possunt: varietas enim medieamentorum ignorantiæ filia est; neqne multa fercula (quod aiunt) tam mnltos morbos fecere, quam multa medieamenta pancas enras. Atque de operatione super viscera prineipalia, ad extrusionem alimenti, hæc inquisita sunt.

VI.

OPERATIO SUPER PARTES EXTERIORES AD ATTRACTIONEM ALIMENTI.

Historia.

1. Lieet eoneoctio bona, per partes interiores facta, primas partes ad probam alimentationem teneat; tamen eneurrere etiam debent aetiones partium exteriorum; ut sieut facultas interior alimeutum emittit et extrudit, ita facultas partium exteriorum idem arripiat et attrahat; quoque imbecillior fuerit faeultas concoctionis, eo magis opus est auxilio conenrrente faeultatis attractivæ.

2. Attractio valida partium exteriorum excitatur præcipue per motum eorporis, per qnem partes calefaetæ et eonfortatæ alimentum ad se alacrius vocant et attrahunt.

3. Illud vero maxime cavendum et prohibendum; ne idem motus et calor, qui ad membra novum suecum evocat, membrum simul eo succo, qno antea perfusum erat, nimium exsolvat.

4. Frieationes huic intentioni optime subserviunt, factæ præcipue mane; sed hoc perpetuo comitetur, ut post frieationem fiat levis inunctio eum oleo, ne attritio partium exteriorum eas per perspirationem reddat effœtas.

5. Proxima est exercitatio, per quam partes ipsæ se confrieant et concutiunt: modo sit moderata, et quæ (ut superius notatum est) nec sit celeris, nec ad ultimas vires, nec ad lassitudiuem; verum in hac ipsa, atque fricatione, eadem est ratio et cautio, ne eorpus nimium perspiret: itaque exercitatio melior est sub dio quam sub tecto, et hieme quam æstate; atque insuper, exercitatio inunctione non tantum elaudi debet, ut fricatio; sed etiam in exercitationibus vehementioribus adhibenda est unctio, et in principio, et snb finem, more athletarum.

6. Ad exercitationem, ut quam minimum aut spiritus, aot sueeos exsolvat, utile est, ut usurpetur stomacho non prorsus jejuno. Itaque ut exercitatio nec stomacho repleto, (quod plurimum interest sanitatis,) nec jejuno (quod non minus interest longitudinis vitæ) usurpetur; in usum adduci debet jentaculum mane, non ex medicamentis, aut hanstibus matutinis, aut uvis passis, aut ficubus, aut hujusmodi; aed plane ex cibo et potu; at levi admodum et modica quantitate.

7. Exercitationes ad irrigationem membrorum debent esse membris omnibus quasi æquales; non ut (quemadmodum ait Socrates) tibiæ moveant, brachia quiescant, uec e contra; sed ut partes universæ ex motu partieipent; atque omnino ad vitam prodest, ut corpus nunquam diu in eadem positura permaneat; sed singulis semi-horis, ad miuus, posituram mutet, præterquam in somno.

8. Quæ ad mortificationem usurpantur, ad vivificationem traduci possunt; nam et indusia setosa, et flagellationes, et omnis exteriorum vexatio, vim eorum attractivam roborat.

9. Urticationem commendat Cardanus, etiam ad melancholiam; verum de hac parum nobis compertum est; et suspecta nobis est illa, ne, propter venenatam nonnullam qualitatem urticæ, serpigines usu frequenti iuducat et mala cutis. Atque de operatione super partes exteriores, ad attractionem alimenti, hæc inquisita sunt.

VII.

OPERATIO SUPER ALIMENTUM IPSUM AD INSINUATIONEM EJUSDEM.

Historia.

1. Reprehensio vulgaris de multis ferculis censorem potius decet, quam medicum; aut utcunque constantiæ sanitatis utilis esse potest, ad longitudinem vitæ noxia est; propterea quod mistura alimentorum varia et aliquantum heterogenea exitum reperit in venas et succos, melius et alacrius, quam simplex et homogenea; cum insuper ad appetitum excitandum (qui acies est digestionis) plurimum possit. Itaque et mensam variam et mutationes subinde ciborum, pro temporibus anni, aut alias, probamus.

2. Etiam illud de simplicitate ciborum absque condimentis, simplicitas judicii est; eum condimenta bona et bene electa sint præparationes ciborum saluberrimæ, atque tum ad sanitatem, tum ad vitam conferant.

3. Videndum est, nt cum cibis durioribus conjungantur potus fortiores, et condimenta quæ penetrent et incidant; cum cibis contra facilioribus, potus tenues et condimenta pinguia.

4. Cum panlo ante monnerimus, nt prima potio in cœna excipiatur calida, nunc addimus, quod ad præparationem stomachi etiam semi-hora ante cibum bonus haustus potus (cui qnisque maxime insuevit) calidus usurpetur; sed parum aromatizatus ad gratiam saporis.

5. Præparatio ciborum, et panis, et potnum, si bene et in ordine ad intentionem instituatur, magni est prorsus momenti; licet sit res mechanica, et sapiat culinam et cellam; cum tamen longe præstet fabellis de auro, et gemmis, et hujusmodi.

6. Humectatio succorum corporis per præparationem alimentorum humidam puerilis res est; ad fervores morborum nonnihil facit; ad alimentationem

vera roscidam omnino contraria est; itaque elixatio ciborum longe inferior est, ad intentionem nostram, assatione, et coctione in furno, et similibus.

7. Assatio debet fieri igne vivido, et celerius perfici; non igne lento et nimia mora.

8. Carnes omnes solidiores in usu esse debent non prorsus recentes, sed nonnihil salis expertæ; ex sale ipso autem in mensa, eo minus sumi debet, aut nihil omnino. Sal enim alimento incorporatus magis valet ad distributionem, quam per se sumptus.

9. Debent in usum adduci macerationes et infusiones carnium variæ et bonæ in liquoribus idoneis, ante assationes; quemadmodum quandoque in usu sunt similia ante coctiones in furno, et in muriis aliquorum piscium.

10. At pulsationes et tanquam verberationes carnium, antequam coquantur, haud parvum rem præstant: certe in confesso est et perdices, et phasianos, in aucupio; et damas, et cervos, in venatione occisos (nisi fuerit ea fuga longior) gratiores esse etiam ad gustum. Pisces autem nonnulli flagellati et verberati, evadunt meliores. Etiam pyra duriora et austera, atque alii nonnulli fructus, compressione dulcescunt. Bonum esset in usum adduci, carnium duriorum nonnullam pulsationem et contusionem, antequam ignem patiantur; idque ex optimis præparationibus erit.

11. Panis modice fermentatus, et valde parum salitus, optimus est; quique etiam in furno ferventi satis, nec admodum elanguido, coctus est.

12. Potus præparatio ad vitam longam simplici fere præcepto constat: atque de aquæ potoribus nihil attinet dicere; potest hujusmodi dieta (ut alibi diximus) vitam aliquandiu remorari, sed nunquam majorem in modum prolongare; at in aliis potibus spirituosis, qualia sunt vinum, cervisia, hydromeli, et hujusmodi, id tanquam summa summarum affectari et observari debet, ut partes liquoris sint subtilissimæ, et spiritus lenissimus: hoc vetustate simplici difficile erit efficere, quæ gignit partes paulo subtiliores, spiritus vero multo acriores; itaque de infusione in doliis substantiæ alicujus pinguis, quæ spirituum acrimoniam compescat, jam antea præceptum est: est et alius modus absque infusione aut nutura; is est, ut liquor potus continuo agitetur, sive per vecturam in mari, sive per vecturam in carris, sive suspendendo utres ex funibus, eosque quotidie agitando, aut aliis hujusmodi modis: certum enim est, motum illum localem partes subtilizare, ac spiritus in partibus interim ita fermentare, ut acedini (quod putrefactionis genus est) non vacent.

13. Vergente autem senectute, etiam talis præparatio ciborum instituenda est, quæ sit tanquam in media via ad chylum. Atque de distillationibus ciborum, meræ nugæ sunt; etenim portio nutritiva vel optima non ascendit in vaporem.

14. Incorporatio cibi et potus, antequam concurrant in stomacho, gradus est ad chylum; itaque sumantur vel pulli, vel perdices et phasiani, et similia; et coquantur in aqua cum parum salis; deinde mundentur et siccentur; postea sive in musto, sive in cervisia fervescente, infundantur, cum parum sacchari.

15. Etiam expressiones ciborum et concisiones minutæ, bene conditæ, senibus utiles sunt; eo magis quod officio dentium in manducatione (quod præparationis præcipuum genus est) fere destituantur.

16. Atque de juvamentis ejus defectus (dentium scilicet roboris, ad cibum molendum) tria sunt quæ conferre possint. Primum, ut alii dentes renascantur; id quod difficile omnino esse videtur, nec posse perfici absque instauratione corporis intima et potenti. Secundum est, ut mandibula per astringentia debita ita firmentur, ut officio dentium aliqua ex parte sufficere possint; quod non male cedere posse videtur. Tertium ut cibus sit ita præparatus, ut ista masticatione non egeat; quod promptum est et expeditum.

17. Subit etiam cogitatio de quantitate cibi et potus; cum in excessu nonnullo quandoque ad irrigationem corporis utilem esse: itaque et epulæ profusæ et perpotationes non omnino inhibendæ sunt. Atque de operatione super alimenta et eorundem præparationem hæc inquisita sunt.

VIII.

OPERATIO SUPER ACTUM ULTIMUM ASSIMILATIONIS.

Connexio.

De actu ultimo assimilationis (quem operationes tres proximæ præcedentes intuentur) brevis et simplex erit præceptio: resque magis explicatione indiget, quam præceptione aliqua varia.

Commentatio.

1. Certum est corpora omnia assimilandi, quæ in contiguo sunt, desiderio nonnullo indui. Id faciunt generose et alacriter tenuia et pneumatica; veluti flamma, spiritus, aër: at contra, quæ molem habent crassum et tangibilem, debiliter admodum; eo quod desiderium illud assimilandi a fortiori desiderio quictis, et se non movendi, ligetur.

2. Certum est itidem, desiderium illud assimilandi, in mole corporea ligatum, ut diximus, et inutile redditum, a calore aut spiritu in proximo liberari nonnihil et excitari, ut tum demum actuetur; quæ unica est causa, cur inanimata non assimilent, animata assimilent.

3. Certum et hoc quoque est; quo durior sit corporis consistentia, eo illud indigere majore calore ad stimulum assimilationis; quod in senibus male omnino cedit, quia partes sunt obstinatiores, calor imbecillior. Itaque aut obstinatio partium mollienda, aut calor intendendus; atque de malacissatione membrorum postea dicemus, cum jam ante etiam plura, quæ ad duritiem hujusmodi prohibendam, et præveniendam pertinent, proposuerimus. De calore autem intendendo jam simplici præcepto utemur, si prius etiam alterum axioma assumpserimus.

4. Actus assimilationis, (qui a calore, ut diximus, circumfuso excitatur) est motus admodum accuratus et subtilis, et in minimis. Omnes autem hujusmodi motus tum demum sunt in vigore, cum omnis localis motus cesset, qui eum obturbet. Etenim motus separationis in homogenea, qui in lacte est, ut flos supernatet, serum subsidat, nunquam fiet, si lac leniter agitetur: neque putrefactio ulla in aqua aut mistis procedet, si illa continuo localiter moveantur.

Ex his itaque, quæ assumpta sunt, hoc jam ad inquisitionem præsentem concludemus.

5. Actus ipse assimilationis perficitur præcipue in somno et quiete, præsertim versus auroram, facta jam distributione: non habemus igitur aliud, quod ad præcipiendum occurrit, nisi ut homines dormiant in calido; atque insuper, ut versus auroram sumatur aliqua inunctio, vel indusium intinctum, excitans moderate calorem, atque post illud sumptum redintegretur somnus. Atque de actu ultimo assimilationis, hæc inquisita sunt.

IX.

OPERATIO SUPER INTENERATIONEM EJUS, QUOD AREFIERI CŒPIT, SIVE MALACISSATIO CORPORIS.

Connexio. De inteneratione per interius, quæ per multas ambages et circuitus fit, tam alimentationis, quam detentionis spiritus, (ideoque sensim perficitur,) superius inquisitum est; de ea autem, quæ fit per exterius, et quasi subito, sive de corpore malacissando, jam videndum est.

Historia. 1. In fabula de restitutione Peliæ in juventutem, Medea, cum id se moliri fingeret, eam proposuit rationem rei conficiendæ; ut corpus senis in frusta concideretur; deinde in lebete cum medicamentis quibusdam decoqueretur. Coctio fortasse aliqua ad hoc requiretur, concisione in frusta scilicet non est opus.

2. Attamen etiam concisio in frusta adhibenda aliquatenus videtur, non ferro, sed judicio: cum enim viscerum et partium sit consistentia multum diversa, necesse est, ut inteneratio ipsorum non iisdem modis absolvatur, sed ut instituatur cura singulorum, præter ea quæ pertinent ad inteneratione totius massæ corporis; de qua tamen primum.

3. Huic operationi per balnea, unctiones, et similia, (si modo sit ejus rei aliqua potestas,) satisfieri verisimile est; circa quæ observanda sunt ea, quæ sequuntur.

4. Non nimis indulgendum est spei, quod hæc res confici possit, propter ea, quæ fieri cernimus in imbibitionibus et maceration ibus inanimatorum, per quas illa intenerantur; cujus aliqua exempla superius adduximus. Facilior enim est operatio hujusmodi super inanimata, quia attrahunt et sugunt liquores: at in corpore animali difficilior, quia motus in iis fertur potius ad circumferentiam.

5. Ideo balnea, quæ in usu sunt, emollientia parum prosunt, sed obsunt potius: quia extrahunt magis, quam imprimunt; et solvunt compagem corporis, potius quam consolidant.

6. Balnea et unctiones, quæ operationi præsenti (corpori scilicet bene et solide malacissandi) inservire possint, tres debent habere proprietates.

7. Prima et præcipua est, ut constent ex iis, quæ tota substantia similia sunt corpori et carni humanis, quæque sint tanquam alma et nutricantia per exterius.

8. Secunda est, ut habeant admista ea, quæ subtilitate nonnulla imprimant, ut vim nutritivam eorum, quibus admiscentur, insinuent et inculcent.

9. Tertia, ut recipiant nonnullam misturam (licet reliquis longe minorem) eorum, quæ sunt astringentia; non austera, aut acerba, sed unctuosa et confortantia, ut dum reliqua duo operentur, interim prohibeatur (quantum fieri potest) exhalatio e corpore, quæ virtutem malacissantium perdat; sed potius ut per astrictionem cutis, et clausuram meatuum, motus ad intra promoveatur et juvetur.

10. Consubstantiale maxime corpori humano est sanguis tepidus, vel ex homine, vel ex aliis animalibus: at Ficini illud commentum, ad instaurationem virium in senibus, de exsuctione sanguinis humani ex brachio adolescentis sani, leve admodum est: etenim, quod per interius nutrit, nullo modo debet esse æquale, aut plane homogeneum corpori, quod nutritur; sed aliquatenus inferius et subordinatum, ut subigi possit: at in exterius applicatis, quanto substantia est similior, tanto consensus melior.

11. Ab antiquo receptum est, balneum ex sanguine infantium sanare lepram, et carnes jam corruptas restituere; adeo ut hoc ipsum fuerit regibus quibusdam invidiæ apud plebem.

12. Proditum est Heraclitum, hydrope laborantem, se in ventre calido bovis, nuper occisi, immersisse.

13. In usu est sanguis tepidus catulorum felis ad erysipelata, et instaurandas carnes et cutem.

14. Brachium, aut membrum aliquod abscissum, aut ex quo sanguis alias nimium profluit, utiliter inseritur in ventrem alicujus animalis nuper dissectum; nam potenter operatur ad sistendum sanguinem; sanguine membri abscissi sanguinem recentem animalis per consensum sorbente et ad se vehementer trahente; unde et ipse sistitur et refluit.

15. Multum in usu est in morbis extremis, et quasi desperatis, ut columbæ scissæ, aliæ post alias mutatæ, ad plantas pedum ægroti apponantur; unde sequitur interdum auxilium mirabile; id vulgo imputatur, quasi maligna morbi traherent; sed utcunque caput petit ista medicatio, et spiritus animales confortat.

16. Verum balnea ista et unctiones sanguinolentæ nobis videntur sordidæ et odiosæ; videndum de aliis, quæ minus fortasse habent fastidii, neque tamen minus juvamenti.

17. Post sanguinem igitur recentem similia substantiæ corporis humani sunt alimentosa, carnes pinguiores, bovinæ, suillæ, cervinæ; ostrea inter pisces; lac, butyrum; vitella ovorum; pollen tritici; vinum dulce, aut saccharatum, aut mulsum.

18. Quæ admisceri debent ad impressionem, sunt, loco omnium, sales, præsertim niger; etiam vinum (cum spiritu turgeat) imprimit et utile est vehiculum.

19. Astringentia ejus generis, quæ descripsimus, unctuosa scilicet et confortantia, sunt, crocus, mastiche, et myrrha, et baccæ myrti.

20. Ex his, pro nostro judicio, optime fiet balneum, quale desideramus. Medici et posteri meliora reperient.

21. Longe autem potentior fiet operatio, si balneum, quale proposuimus (quod caput rei esse arbitramur) comitetur quadruplex operationis series sive ordo.

22. Primo, ut balneum præcedat fricatio corporis, et inunctio ex oleo, cum aliquo spissamento; ut virtus et calor humectans balnei potius subintret cor-

pus, quam aquea pars liquoris. Deinde, sequatur balneum ipsum, ad horas forte duas. A balneo autem emplastretur corpus ex mastiche, myrrha, tragacantho, diapalma, croco, ut cohibeatur (quantum fieri potest) perspiratio, donec malacum paulatim vertatur in solidum; idque per viginti quatuor horas, vel amplius. Postremo, amota emplastratione, fiat unctio cum oleo, addito sale et croco, et renovetur balneum post quatriduum, cum emplastratione et unctione, (ut prius,) et continuetur hujusmodi malacissatio per mensem unum.

23. Etiam durante tempore malacissationis utile judicamus, et proprium, et secundum intentionem nostram, ut corpus bene nutriatur, et ab aëre frigido abstineatur, et nil nisi calidum bibatur.

24. Hoc vero (ut initio in genere monuimus) est ex iis, quæ nobis experimento probata non sunt, sed descripta tantummodo ex collimatione ad finem. Etenim meta posita, aliis lampada tradimus.

25. Neque negligenda sunt fomenta ex corporibus vivis. Ficinus ait (neque id per jocum) Davidem contubernia puellæ, alias salubriter, sed nimis sero usum fuisse; debuerat autem addere, quod puellam illam, more virginum Persiæ, oportuisset inungi myrrha et similibus, non ad delicias, sed ad augendam virtutem fomenti ex corpore vivo.

26. Barbarossa, ætate extrema, ex consilio medici Judæi puerulos continue stomacho et iliis applicabat ad fomenta: etiam senes nonnulli caniculas (animalia scilicet inter calidissima) stomacho noctu applicare consueverunt.

27. De hominibus quibusdam nasonibus (qui, irrisionis pertæsi, nasorum tuberes et quasi surculos amputarunt, atque in brachiorum ulnas, incisione nonnulla adapertas, ad tempus insuerunt, atque inde nasos magis decentes efformarunt) increbuit relatio quasi certa: idque in multis nominibus: ea si vera sit, consensum carnis ad carnem, præsertim vivarum, plane testatur.

28. De inteneratione particulari viscerum principalium, stomachi, pulmonum, jecoris, cordis, cerebri, spinalis medullæ, renum, fellis, iliorum, venarum, arteriarum, nervorum, cartilaginum, ossium, nimis longa foret inquisitio et præscriptio; cum jam non praxim instruamus, sed indicationes ad praxim.

X.

OPERATIO SUPER EXPURGATIONEM SUCCI VETERIS ET RESTITUTIONEM SUCCI NOVI, SIVE RENOVATIONEM PER VICES.

Historia. Licet quæ hic ponemus superius fere præoccupata sint, tamen quia ista operatio est ex principalibus, retractabimus ea paulo fusius.

1. Certum est, boves aratores, atque laboribus exhaustos, in pascua nova et læta admissos, carnes recipere teneras et juveniles: idque esu et palato comprobari; ut manifestum sit carnium inteneration nem non esse difficilem; verum et carnis inteneration nem sæpius repetitam, etiam ad ossa et membranas, et similia, pervenire posse verisimile est.

2. Certum est, diætas, quæ in usu sunt, ex guaiaco præcipue, atque ex sarsa-parilla, et china, et sassafras, præsertim longius continuatas, et secundum regulas rigidiores, universum corporis succum primo attenuare, deinde consumere atque sorbere; quod manifestissimum est, quia morbum Gallicum usque ad gummositates provectum, quique intimos corporis succos occupaverit et depravaverit, ex illis diætis posse curari probatum est: atque insuper quia æque manifestum est, per hujusmodi diætas homines factos macilentos, pallidos, et quasi cadaverosos, paulo post impinguari, colorari, et manifesto renovari. Quamobrem hujusmodi diætas, vergente ætate, semel biennio, ad intentionem nostram utiles esse omnino existimamus, tanquam exuvias et spolia serpentum.

3. Fidenter dicimus (neque vero quis, rogo, nos inter hæreticos Catharos reponat) purgationes repetitas, atque factas familiares, longe magis ad diuturnitatem vitæ facere, quam exercitia et sudores. Id autem fieri necesse est, si teneatur quod positum est; unctiones corporis, et meatuum ab extra oppletiones, et aëris exclusiones, et spiritus in massa corporis detentiones, plurimum conducere ad vitam longævam. Etenim certissimum est, per sudores et perspirationes exteriores, non solum humores et vapores excrementitios exhalari et absumi; sed una etiam succos et spiritus bonos, qui non tamen facile reparantur: in purgationibus autem (nisi fuerint admodum immoderatæ) non item, cum super humores præcipue operentur. Purgationes autem ad hanc intentionem optimæ sunt, quæ paulo ante cibum sumuntur, quia desiccant minus; ideoque debent esse ex iis catharticis, quæ ventriculum minime turbant.

Intentiones operationum, quas proposuimus, (ut arbitramur,) verissimæ sunt; remedia intentionibus fida. Neque credibile est dictu, (licet haud pauca ex ipsis velut plebcia videri possint,) quanta cum cura et delectu ea a nobis examinata fuerint; ut sint (salva semper intentione) et tuta et efficacia. Rem ipsam experimentum et comprobavit et promovebit. Talia autem in omnibus rebus sunt opera consilii cujusque prudentioris; quæ sunt effectu admiranda, ordine quoque egregia, modis faciendi tanquam vulgaria.

ATRIOLA MORTIS.

De atriolis mortis jam inquirendum; id est, de iis, quæ accidant moricntibus in articulo mortis, et paulo ante, et post: Ad Art. 15. Connexio.

ut cum multis viis perveniatur ad mortem, intelligi possit in quæ communia illæ desinant; præcipue in mortibus, quæ inferuntur per indigentiam naturæ, potius quam per violentiam; tametsi etiam aliquid ex his propter rerum connexionem inspergendum sit.

1. Spiritus vivus videtur tribus indigere, ut subsistat: motu commodo; refrigerio temperato; et alimento idoneo. Flamma vero duobus ex his tantum indigere videtur; motu nimirum et alimento; propterea quod flamma simplex sit substantia, spiritus composita; ita ut si transeat paulo propius in naturam flammeam, se perdat. Historia.

2. Etiam flamma majore flamma et potentiore resolvitur et necatur, ut bene notavit Aristoteles; multo magis spiritus.

3. Flamma, si comprimatur nimium, extinguitur; ut cernere est in candela, superimposito vitro: etenim aër per calorem dilatatus contrudit flammam, eamque minuit et extinguit; neque in caminis concipitur flamma, si materies, absque spatio aliquo interjecto, compingatur.

4. Etiam ignita compressione extinguuntur; veluti si carbonem ignitum ferro, aut pede, fortiter comprimas, extinguitur statim ignis.

5. At ut ad spiritum veniamus; si sanguis aut phlegma irruat in ventriculos cerebri, fit mors subito; eum spiritus non habeat, ubi se moveat.

6. Contusio etiam capitis vehemens inducit subitam mortem, spiritibus in ventriculis cerebri angustatis.

7. Opium et alia narcotica fortiora coagulant spiritum, eumque privant motu.

8. Vapor venenatus, spiritui totaliter odiosus, infert mortem subitam, ut in venenis mortiferis, quæ operantur per malignitatem (ut loquuntur) specificam; incutit enim fastidium spiritui, ut amplius movere, aut rei tam inimicæ occurrere, nolit.

9. Etiam extrema ebrietas, aut crapula, quandoque inferunt mortem subitam; cum spiritus non tam densitate aut malignitate vaporis, (ut in opio et venenis malignis,) quam ipsa copia obruatur.

10. Extremus mœror et metus, præsertim subitus, (ut fit in nuncio malo et improviso,) quandoque dant subitam mortem.

11. At non solum nimia compressio, sed etiam nimia dilatatio spiritus, mortifera.

12. Gaudia ingentia et repentina complures exanimarunt.

13. In magnis evacuationibus, quales fiunt in secandis hydropicis, exeuntibus confertim aquis; multo magis in ingentibus et repentinis profluviis sanguinis, sequitur sæpius mors subita; idque per meram fugam vacui in corpore, omnibus affatim moventibus ad spatia implenda, quæ exinaniuntur: atque inter alia spiritu ipso: nam quoad profluvia sanguinis tardiora, res spectat ad indigentiam alimenti, non ad refusionem spiritus. Atque de motu spiritus, in tantum vel compresso, vel effuso, ut mortem inferat, hæc inquisita sunt.

14. Veniendum ad indigentiam refrigerii. Cohibitio respirationis mortem infert subitam, ut in omni suffocatione aut strangulatione. Neque tamen videtur res referri debere tam ad impedimentum motus, quam ad impedimentum refrigerii; quia aër nimis calidus, licet libere attractus, non minus suffocat, quam si inhibeatur respiratio; ut fit in iis, qui suffocati aliquando sunt ex carbonibus incensis, aut lithanthracibus, aut parietibus recenter dealbatis, in cubiculis clausis, igne etiam accenso: quod genus mortis traditur fuisse imperatoris Joviniani. Aut etiam ex balneis siccis supercalefactis, quod usurpatum fuit in nece Faustæ, Constantini Magni uxoris.

15. Valde pusillum est tempus, quo natura anhelitum repetit, atque expelli fuliginem aëris in pulmones attracti, et recentem intro-recipi desiderat; vix certe ad tertiam partem minutæ.

16. Rursus pulsus arteriarum et motus cordis, systoles et diastoles, triplo velocior quam respiratio; adeo ut, si fieri posset, ut ille motus in corde absque inhibita respiratione sisti posset, sequeretur mors etiam celerius, quam ex strangulatione.

17. Usus tamen et consuetudo in hac naturali actione respirationis nonnihil valet; ut in urinatoribus Deliis, et piscatoribus perlarum, qui perpetuo usu decuplum temporis ad minimum retinere anhelitum possunt, plusquam pro ratione aliorum hominum.

18. Sunt ex animalibus, etiam ex iis quæ pulmones habent, alia quæ ad longius tempus, alia quæ ad brevius, anhelitum cohibere possunt; prout majore scilicet aut minore indigent refrigerio.

19. Pisces minore indigent refrigerio, quam animalia terrestria: indigent tamen, atque refrigerantur per branchias: atque quemadmodum terrestria aërem nimis fervidum, aut oculusum, non ferunt; ita et pisces in aqua, glacie totaliter et diutius co-operta, suffocantur.

20. Si spiritus insultum patiatur ab alio calore, proprio longe vehementiore, dissipatur et perditur. Si enim proprium calorem non sustineat absque refrigerio, multo minus alienum intensiorem tolerare potest; id cernitur in febribus ardentibus, ubi calor humorum putrefactorum calorem nativum superat, usque ad extinctionem sive dissipationem.

21. Somni quoque indigentia et usus refertur ad refrigerium. Motus enim spiritum attenuat et rarefacit, et calorem ejus acuit et intendit. Somnus contra, motum et discursum ejus sedat et compescit. Etsi enim somnus actiones partium et spiritunm mortualium, et omnem motum ad circumferentiam corporis roboret et promoveat; tamen motum proprium spiritus vivi magna ex parte consopit et tranquillat. At somnus regulariter semel infra 24 horas naturæ humanæ debetur, idque ad sex aut quinque horas ad minimum; licet sint etiam in hac parte quandoque naturæ miracula; ut refertur de Mæcenate, quod longo tempore ante obitum non dormisset. Atque de indigentia refrigerii ad spiritum conservandum hæc inquisita sint.

22. Quod vero ad tertium indigentiam attinet, (alimenti scilicet,) videtur illa ad partes potius quam ad spiritum vivum pertinere. Facile enim quis credat, spiritum vivum subsistere in identitate, non per successionem aut renovationem. Atque quoad animam rationalem in homine, certo certius est, eam nec ex traduce esse, nec reparari, nec interire. Loquuntur de spiritu naturali animalium, atque etiam vegetabilium, qui ab illa altera essentialiter et formaliter differt; ex horum enim confusione metempsychosis illa, et innumera tam ethnicorum, quam hæreticorum, commenta emanarunt.

23. Renovatio per alimentum in corpore humano regulariter singulis diebus requiritur. Triduanum autem jejunium sanis vix toleratur: usus tamen et consuetudo, etiam in hac parte, haud parum valet: at morbo languentibus inedia minus gravis est. Etiam somnus alimentationi nonnihil parat, quemadmodum contra exercitatio eam efflagitat magis. Inventi etiam sunt (sed raro) aliqui, qui, quodam naturæ miraculo, sine cibo et potu ad tempus non mediocre vixerunt.

24. Corpora mortua, si non intercipiantur a putredine, diutius sine notabili absumptione subsistunt:

At corpora viva non multum ultra triduum, (ut dictum est,) nisi reparentur per alimentationem; id quod indicat citam illam absumptionem esse opus spiritus vivi, qui aut se reparat, aut partes ponit in necessitate se reparandi, aut utrumque: quam rem etiam illud astruit, (quod paulo ante notatum est,) nempe, quod possint animalia sine alimento paulo diutius durare, si dormiant. At somnus omnino nil aliud est, quam receptio spiritus vivi in se.

25. Copiosa nimis et continua effluxio sanguinis, qualis aliquando fit ab hæmorrhoidibus; interdum a vomitu sanguineo, venis interioribus reseratis aut fractis; interdum ex vulneribus, mortem infert festinam: cum sanguis venarum sanguini arteriarum ministret; sanguis arteriarum, spiritui.

26. Haud parvum est quantum cibi et potus, quod homo, bis in die pastus, intra corpus recipit: longe plus, quam aut per sellam, aut per urinam, aut per sudores egerit: nil mirum (inquis) cum reliquum in succos et substantiam corporis mutetur. Recte: sed cogita paulisper, quod ea accessio fit bis in die, neque tamen corpus exundat; similiter, licet spiritus reparetur, tamen quanto suo non enormiter exsrescit.

27. Nil attinet adesse alimentum in gradu remoto, sed ejus generis et ita præparatum et ministratum, ut spiritus in illud agere possit. Neque enim baculus cerei sufficiet ad flammam continuandam, nisi adsit cera; neque homines herbis solis pasci possunt: atque inde fit atrophia senilis, quod licet adsit caro et sanguis, tamen spiritus est factus tam paucus et rarus, et succi et sanguis tam effœti et obstinati, ut non teneat proportio ad alimentandum.

28. Subducamus calculos indigentiæ, secundum cursum naturæ ordinarium et consuetum. Explicatione motus sui in ventriculis cerebri et nervis indiget spiritus perpetuo: motu cordis, tertia parte momenti; respiratione, singulis momentis; somno et alimento, intra triduum; potentia ad alimentandum quasi post octoginta annos. Atque si alicui ex his indigentiis non succurratur, sequitur mors. Atque tria plane esse videntur atriola mortis; destitutio spiritus, in motu suo; in refrigerio; in alimento.

Monita. (1.) Erraverit, qui existimet spiritum vivum, exempla flammæ, perpetuo generari et extingui, nec ad tempus aliquod notabile durare. Neque enim hoc facit flamma ipsa ex natura sua, sed quia inter inimica versatur: nam flamma intra flammam durat. At spiritus vivus inter amica degit et obsequia plurima. Itaque cum flamma sit substantia momentanea, aër autem substantia fixa; spiritus vivi media est ratio.

(2.) De interitu spiritus per destructionem organorum, (qualis fit per morbos et violentiam,) non est inquisitio præsens (ut ab initio diximus); tametsi et ille in eadem tria atriola desinat. Atque de ipsa forma mortis hæc inquisita sint.

29. Duo sunt magni præcursores mortis; alter a capite, alter a corde missus: convulsio et extremus labor pulsus; nam etiam singultus ille lethalis est convulsionis genus; labor autem pulsus lethalis habet velocitatem insignem, quandoquidem cor sub ipsa morte ita trepidet, ut systole et diastole fere confundantur; habet etiam conjunctam debilitatem et humilitatem, et sæpius intermissionem magnam, labascente motu cordis, nec fortiter aut constanter insurgere valente.

30. Præcedunt etiam mortem in propinquo summa inquietudo et jactatio; motus manuum floccos colligendo; nixus prehensionis et tentionis fortis; dentes etiam fortiter comprimere; glutire vocem; tremor labii inferioris; pallor oris; memoria confusa; sermonis privatio; sudores frigidi; corporis elongatio; sublatio albuginis oculorum; faciei totius alteratio (naso acuto, oculis concavis, genis labantibus); linguæ contractio et convolutio; frigus extremitatum; in aliquibus emissio sanguinis aut spermatis; clamor acutus; anhelitus crebet; inferioris maxillæ lapsus, et similia.

31. Mortem sequuntur sensus omnis et motus, tam cordis et arteriarum, quam nervorum et artuum, privatio; impotentia corporis se sustentandi erectum; rigor nervorum et partium; depositio omnis caloris; paulo post putrefactio et fœtor.

32. Anguillæ, serpentes, et insecta diu moventur singulis partibus post concisionem; ut etiam rustici putent partes singulas ad se rursus uniendum expedire. Etiam aves capitibus avulsis ad tempus subsultant: quin et corda animalium avulsa diu palpitant. Equidem meminimus ipsi vidisse hominis cor, qui evisceratus erat, (supplicii genere apud nos versus proditores recepto,) quod in ignem de more injectum saltabat in altum, primo ad sesquipedem, et deinde gradatim ad minus; durante spatio (ut meminimus) septem aut octo minutarum. Etiam vetus et fide digna traditio est, de bove sub eviscerationem mugiente. At magis certa de homine, qui eo supplicii genere (quod diximus) evisceratus, postquam cor avulsum penitus esset, et in carnificis manu, tria aut quatuor verba precum auditus est proferre; quod idcirco magis credibile esse diximus, quam illud de sacrificio; quia solent amici hujusmodi reorum mercedem dare carnifici, ut officium suum pernicissime expediat, quo illi celerius a doloribus liberentur: in sacrificiis vero non videmus causam, cur similis præstetur a sacerdote diligentia.

33. Ad resuscitandum eos, qui deliquia animi aut catalepses subitas patiuntur, (quorum haud pauci, absque ope, etiam exspiraturi fuissent,) hæc sunt in usu. Exhibitio aquarum ex vino distillatarum, (quas aquas vocamus calidas et cordiales,) inflexio corporis in pronum; obturatio fortis oris et narium; flexio digitorum cum tortura quadam; evulsio pilorum barbæ aut capitis; frictio partium, præsertim faciei et extremorum; subita inspersio aquæ frigidæ in faciem; strepitus acuti et subiti; appositio ad nares aquæ rosaceæ, cum aceto, in languoribus; incensio plumarum, pannorum, in suffocatione uteri: at maxime sartago fervefacta utilis est apoplecticis; etiam fotus arctus corporum vivorum aliquibus profuit.

34. Complura fuerunt exempla hominum, tanquam mortuorum aut expositorum e lecto, aut delatorum ad funus, quinetiam nonnullorum in terra conditorum, qui nihilominus revixerunt; id quod in iis, qui conditi sunt, repertum est (terra aliquanto

post aperta) per obtusionem et vulnerationem capitis, ex jactatione et nixu endaveris intra feretrum: cujus exemplum recentissimum, et maxime memorabile fuit, Joannis Scoti, subtilis illius et scholastici; qui a servo, cum sepultus esset, absente (quique, ut videtur, hujusmodi catnlepsiæ ejus symptomata noverat) aliquanto post effossus, in tali statu repertus est: et simile quiddam accidit nostra ætate, in persona histrionis sepulti Cantabrigiæ. Memini me accepisse de generoso quodam, qui, ludibundus, ex curiositate desiderabat scire qualin paterentur in patibulo suspensi; seseque suspendit, super scabellum se allevans, et deinde se demittens; putans etiam penes se futurum, ut scabellum pro arbitrio suo recuperaret; id quod facere non potuit; sed tamen ab amico præsente adjutus est: ille interrogatus, quid passus esset? Retulit se dolorem non sensisse; sed primo observatam sibi fuisse circa oculos speciem ignis et incendii; deinde extremæ nigredinis, sive tenebrarum; postremo coloris cujusdam cærulei pallidioris, sive thalassini; qualis etiam conspicitur sæpe animo linquentibus. Audivi etiam de medico adhuc vivente, qui hominem, qui se suspenderat, atque per horam dimidiam suspensus manserat, in vitam frictionibus et balneis calidis reduxerat; quique etiam profiteri solent, se non dubitare, quin suspensum quemcunque ad tempus prædictum revocare posset, modo cervices ei, per impetum primæ demissionis, non fuerint effractæ.

DISCRIMINA JUVENTUTIS ET SENECTUTIS.

Ad Art. 16. 1. Scala humani corporis talis est: concipi, vivificari in utero; nasci; mamilla; depulsio a mamilla; usus cibi et potus ab initio, qualis infantibus convenit: dentire primo, circa annum secundum; incipere gradiri; incipere loqui; dentire secundo, circa annum septimum; pubescere, circa annum duodecimum aut decimum quartum; potentem esse ad generandum, et fluxus menstruorum; pili circa tibias et axillas; barbescere; atque hue usque, et quandoque ulterius, grandescere; deinde roboris artuum status et ultimitas, etiam agilitatis; evanescere et calvescere; cessatio menstrui et potentiæ generationis; vergere ad decrepitum, et animol tripes; mori. Interim animus quoque suas habet periodos, sed per annos non possunt describi: ut memoriam labilem, et similia, de quibus posten.

2. Discrimina juventutis et senectutis hæc sunt. Cutis juveni lævis et explicata; seni arida et rugosa, præsertim circa frontem et oculos: cornes juveni teneræ et molles; seni duriores: robur juveni et agilitas; seni diminutio virium et motuum tarditas: juveni coctionum validitas; seni debilitas: juveni viscera mollia et succulenta; seni salsa et retorrida: juveni corpus erectius; seni inclinatio in cavum: juveni constantia artuom; seni debilitas et tremor: juveni humores biliosi, et sanguis fervidior; seni humores phlegmatici et melancholici, et sanguis frigidior: juveni venus in promptu; seni tardior: juveni succi corporis magis roscidi; seni magis crudi et aquei: juveni spiritus multus et turgescens; seni paucus et jejunus: juveni spiritus densus et viridis; seni meris et rarus: juveni sensus vivaces et integri; seni hebetiores et deficientes: juveni dentes robusti et integri; seni debiles, attriti, et decidui: joveni pili colorati; seni, enjuscunque fuerint coloris, cani: juveni coma; seni calvities: juveni pulsus grandior et incitatior; seni obscurior et tardior: juveni morbi magis acuti et curabiles; seni magis chronici, et cruatu difficiles: juveni vulnera citius coalescentia; seni tardius: juveni genæ florentes colore; seni aut pallidæ, aut rubicundæ, atque sanguine spisso: juveni minor molestia ex catarrhis; seni major: neque scimus in quæ proficiant senes, (quoad corpus,) nisi quoadoque in obesitatem; cujus causa præsto est; quia corpora senum nec bene perspirant, nec bene assimilant; pinguedo autem nihil aliud est, quam exuberantia alimenti ultra id, quod excernitur, aut perfecte assimilatur. Etiam in quibusdam senibus in edacitatem proficitur, propter acidos humores, licet senes digerant minus. Ac universa, quæ jam diximus, medici, quasi feriantes, referent ad caloris naturalis et humoris radicalis diminutionem, quæ res nihili sunt ad usum. Illud certum, siccitatem in decursu ætatis frigiditatem præcedere; atque corpora cum sint in statu et acme caloris, ad siccitatem declinare; frigiditatem autem postea sequi.

3. Jam vero etiam de affectibus animi videndum. Equidem memini, cum adolescens essem Pictavii in Gallia, me consuevisse familiariter cum Gallo quodam, juvene ingeniosissimo, sed paululum loquaci; qui postea in virum eminentissimum evasit; ille in mores senum invehere solitus est, atque dicere, si daretur conspici animos senum, quemadmodum cernuntur corpora, non minores apparituras in iisdem deformitates: quinetiam ingenio suo indulgens, contendebat vitia animorum in senibus vitiis corporum esse quodammodo consentientia et parallela. Pro aridilate cutis, substituebat impudentiam: pro duritie viscerum, immisericordiam: pro lippitudine oculorum, oculum malum et invidiam: pro immersione oculorum et curvatione corporis versus terram, atheismum (neque enim cœlum, inquit, respiciunt, ut prius): pro tremore membrorum, vacillationem decretorum, et fluxam inconstantiam: pro inflexione digitorum, tanquam ad prehensionem, rapacitatem et avaritiam: pro labescentia genuum, timiditatem: pro rugis, calliditatem et obliquitatem: et alia quæ non occurrunt. Sed ut serii simus: juveni adest pudor et verecundia; seni paululum obduruit: juveni benignitas et misericordia; seni occalluit: juveni æmulatio laudabilis; seni invidia maligna: juveni inclinatio ad religionem et devotionem, ob fervorum, et inexperientiam mali; seni defervescentin in pietate, ob charitatis teporem, et diutinam conversationem inter malos, necnon ob credendi difficultatem: juveni valde velle; seni moderatio: juveni levitas quædam et mobilitas; seni gravitas major et constantia: juveni liberalitas, et beneficentia, et philanthropia; seni avaritia, et sibi sapere, et consulere: juveni confidentia, et bene sperare; seni diffidentia, et plurima habere pro suspectis: juveni facilitas et obsequium; seni morositas et fastidium: juveni sinceritas et animus apertus; seni cautio et animus tectus: juveni magna appetere; seni necessaria curare: juveni præsentibus rebus

favere; seni anteacta potiora habere: juveni superiores revereri; seni censura in illos uti: et complura alia, quæ ad mores potius pertinent, quam ad inquisitionem præsentem. Attamen, quemadmodum in corpore, ita in animo, in nonnulla proficiunt senes, nisi fuerint admodum emeriti; nempe, ut cum ad excogitandum minus sint prompti, judicio tamen valeant; et tutiora et saniora, quam speciosiora malint; etiam in garrulitatem proficiunt et ostentationem; fructum enim sermonis petunt, cum rebus minus valeant, ut non absurde Tithonum in cicadam versum fuisse poëtæ fingant.

CANONES MOBILES

DE DURATIONE VITÆ, ET FORMA MORTIS.

CANON I.

Non fit consumptio, nisi quod deperditum sit de corpore, transmigret in corpus aliud.

EXPLICATIO.

Nullus est rerum interitus: itaque quod absumitur, aut evolat in aërem, aut recipitur in corpus aliquod adjacens: quare videmus araneam, aut muscam, aut formicam, in electro, monumento plus quam regio, sepultas, æternizari; cum tamen sint res teneræ et dissipabiles. Verum non adest aër, in quem aliquid evolet; atque substantia electri est tam heterogenea, ut nihil ex illis recipiat. Simile etiam fore arbitramur, misso ligno, aut radice, aut ejusmodi, in argentum vivum. At cera, et mel, et gummi, habent similem operationem, sed ex parte tantum.

CANON II.

Inest omni tangibili spiritus, corpore crassiore obtectus et obsessus; atque ex eo originem habet consumptio et dissolutio.

EXPLICATIO.

Nullum corpus nobis notum, hic in superiore parte terræ, spiritu vacat; sive per attenuationem et concoctionem caloris cœlestium, sive alias. Neque enim cava rerum tangibilium vacuum recipiunt; sed aut aërem, aut spiritum rei proprium. Spiritus autem ille (de quo loquimur) non est virtus aliqua, aut energia, aut entelechia, aut nugæ: sed plane corpus tenue, invisibile; attamen locatum, dimensum, reale: neque rursus spiritus ille aër est, (quemadmodum nec succus uvæ est aqua,) sed corpus tenue, cognatum aëri, at multum ab eo diversum: partes autem rei crassiores (cum sint naturæ pigræ, nec admodum mobilis) per periodos longas durare forent: sed spiritus ille est, qui turbat, et illas fodicat et subruit, atque humidum corporis, et quicquid digerere potest in novum spiritum, deprædatur; deinde tam spiritus corporis præinexistens, quam noviter factus, simul sensim evolant. Id optime ostenditur in diminutione ponderis corporum arefactorum per perspirationem. Neque enim quicquid emittitur, erat spiritus, quando ponderaverat; neque non spiritus, quando evolaverat.

CANON III.

Spiritus emissus desiccat; detentus et moliens intus, aut colliquat, aut putrefacit, aut vivificat.

EXPLICATIO.

Quatuor sunt processus spiritus; ad arefactionem; ad colliquationem; ad putrefactionem; ad generationem corporum. Arefactio non est opus proprium spiritus, sed partium crassiorum, post emissum spiritum: tum enim illæ se contrahunt, partim per fugam vacui, partim per unionem homogeneorum: ut liquet in omnibus, quæ arefiunt per ætatem; et in siccioribus corporibus, quæ desiccantur per ignem, ut lateribus, carbonibus, panibus. Colliquatio est merum opus spiritum; neque fit nisi calore excitentur; tum enim spiritus se dilatantes, neque tamen exeuntes, se insinuant et perfundunt inter partes crassiores; easque ipsas reddunt molles et fusiles; ut in metallis et cera: etenim metalla, et alia tenacia, apta sunt ad cohibendum spiritum, ne excitatus evolet. Putrefactio est opus mixtum spiritus et partium crassiorum: etenim spiritu (qui partes rei continebat et frænabat) partim emisso, partim languescente, omnia solvuntur et redeunt in heterogeneas suas, sive (si placet) elementa sua; quod spiritus inerat rei, congregatur ad se (unde putrefacta incipiunt esse gravis odoris): oleosa ad se (unde putrefacta habent nonnihil lævoris et unctuositatis): aquea itidem ad se; fæces ad se (unde fit confusio illa in putrefactis). At generatio, sive vivificatio, est opus itidem mixtum spiritus et partium crassiorum; sed longe alio modo: spiritus enim totaliter detinetur, sed tumet et movetur localiter; partes autem crassiores non solvuntur, sed sequuntur motum spiritus, atque ab eo, quasi difflantur et extruduntur in varias figuras; unde fit illa generatio et organizatio: itaque semper fit vivificatio in materia tenaci et lenta; atque etiam sequaci et molli; ut simul et spiritus fiat detentio; atque etiam cessio lenis partium, prout eas effingit spiritus: atque hoc cernitur in materia omnium tam vegetabilium quam animalium, sive generentur ex putrefactione, sive ex spermate; in his enim omnibus manifestissime cernitur esse materia difficilis ad abrumpendum, facilis ad cedendum.

CANON IV.

In omnibus animatis duo sunt genera spirituum; spiritus mortuales, quales insunt inanimatis; et superadditus spiritus vitalis.

EXPLICATIO.

Jam ante dictum est ad longævitatem procurandam, debere considerari corpus humanum, primo, ut inanimatum et inanimentatum; secundo, ut animatum et alimentatum: nam prior consideratio dat leges de consumptione, secunda de reparatione. Itaque nosse debemus, inesse humanis carnibus, ossibus, membranis, organis, denique partibus singulis, dum vivunt, in substantia earum perfusos tales spiritus, quales insunt in hujusmodi rebus, carne, osse, membrana; et cæteris, separatis et mortuis; quales etiam manent in cadavere: at spiritus vitalis,

tametsi eos regat, et quendam habeat cum illis consensum, longe alius est ab ipsis; integralis et per se constans. Sunt autem duo discrimina præcipua inter spiritus mortuales et spiritus vitales; alterum, quod spiritus mortuales minime sibi continuentur; sed sint tanquam abscissi et circumdati corpore crassiore, quod eos intercipit; quemadmodum aër permixtus est in nive aut spuma. At spiritus vitalis omnis sibi continuatur, per quosdam canales, per quos permeat, nec totaliter intercipitur. Atque hic spiritus etiam duplex est; alter ramosus tantum, permeans per parvos ductus et tanquam lineas: alter habet etiam cellam, ut non tantum sibi continuetur, sed etiam congregetur in spatio aliquo cavo, in bene magna quantitate, pro analogia corporis; atque in illa cella est fons rivulorum, qui inde diducantur. Ea cella præcipue est in ventriculis cerebri, qui in animalibus magis ignobilibus angusti sunt; adeo ut videantur spiritus per universum corpus fusi, potius quam cellulati: ut cernere est in serpentibus, anguillis, muscis, quorum singulæ portiones abscissæ moventur diu: etiam aves diutius capitibus avulsis subsultant; quoniam parva habeant capita, et parvas cellas: at animalia nobiliora ventriculos eos habent ampliores; et maxime omnium homo. Alterum discrimen inter spiritus est; quod spiritus vitalis nonnullam habeat incensionem; atque sit tanquam aura composita ex flamma et aëre; quemadmodum succi animalium habeant et oleum et aquam. At illa incensio peculiares præbet motus et facultates; etenim et fumus inflammabilis, etiam ante flammam conceptam, calidus est, tenuis, mobilis; et tamen alia res est, postquam facta sit flamma; at incensio spirituum vitalium multis partibus lenior est, quam mollissima flamma, ex spiritu vini, aut alias; atque insuper mixta est, ex magna parte, cum substantia aërea; ut sit et flammeæ et aëreæ naturæ mysterium.

CANON V.

Actiones naturales sunt propriæ partium singularum, sed spiritus vitalis eas exitat et acuit.

EXPLICATIO.

Actiones sive functiones, quæ sunt in singulis membris, naturam ipsorum membrorum sequuntur (attractio, retentio digestio, assimilatio, separatio, excretio, perspiratio, etiam sensus ipse) pro proprietate organorum singulorum (stomachi, jecoris cordis, splenis, fellis, cerebri, oculi, auris, et cæterorum). Neque tamen ulla ex ipsis actionibus unquam actuata foret, nisi ex vigore, et præsentia spiritus vitalis et caloris ejus; quemadmodum nec ferrum aliud ferrum attractrum foret, nisi excitaretur a magnete; neque ovum unquam fœcundum foret, nisi substantia fœmellæ actuata fuisset ab initu maris.

CANON VI.

Spiritus mortuales aëri proxime consubstantiales sunt; spiritus vitales magis accedunt ad substantiam flammæ.

EXPLICATIO.

Explicatio canonis quarti præcedentis est etiam declaratio canonis præsentis; verum insuper hinc fit, ut quæcunque sint pinguia et oleosa, diu maneant in esse suo; neque enim aër illa multum vellicat; neque illa etiam ipsa cum aëre conjungi multum desiderant: illud autem prorsus vanum est, quod flamma sit aër accensus, cum flamma et aër non minus heterogenea sint, quam oleum et aqua. Quod vero dicitur in canone, quod spiritus vitales magis accedant ad substantiam flammæ; illud intelligendum est, quod magis hoc faciant, quam spiritus mortuales; non quod magis sint flammei quam aërei.

CANON VII.

Spiritus desideria duo sunt; unum se multiplicandi; alterum exeundi, et se congregandi cum suis connaturalibus.

EXPLICATIO.

Intelligitur canon de spiritibus mortualibus; etenim quoad desiderium secundum, spiritus vitalis exitum e corpore suo maxime exhorret; neque enim invenit connaturalia hic in proximo: ruit forte in occursum rei desiderabilis, ad extima corporis sui; sed egressum, ut dictum est, fugit: verum de spiritibus mortualibus utrumque desiderium tenet: quod ad primum enim attinet, omnis spiritus, inter crassiora locatus, non feliciter habitat; itaque cum simile sui non inveniat, eo magis simile sui creat et facit, in tali solitudine positus; et strenue laborat, ut se multiplicet et volatile crassiorum deprædetur, ut augeatur suo quanto. Quod vero ad secundum desiderium evolandi et se in aërem recipiendi; certum est omnia tenuia (quæ semper sunt mobilia) ad sui similia in proximo libenter ferri; ut bulla aquæ fertur ad bullam, flamma ad flammam: at multo magis hoc fit in evolutione spiritus in aërem ambientem; quia non fertur ad particulam sui similem, sed etiam tanquam ad globulum connaturalium suorum. At illud interum notandum; quod exitus et evolatio spiritus in aërem est duplicata actio; partim ex appetitu spiritus, partim ex appetitu aëris; aër enim communis tanquam res indigens est, atque omnia avide arripit; spiritus, odores, radios, sonos, et alia.

CANON VIII.

Spiritus detentus, si alium spiritum gignendi copiam non habeat, etiam crassiora inteneret.

EXPLICATIO.

Generatio novi spiritus non fit nisi super ea, quæ sunt in gradu ad spiritum propriore: qualia sunt humida. Itaque si partes crassiores (inter quas versatur spiritus) sint in gradu remotiore, licet spiritus eas conficere non possit, tamen (quod potest) eas labefactat, et emollit, et fundit; ut cum quantum suum augere non possit, tamen habitet laxius, et inter ea degat, quæ sint magis amica: iste autem aphorismus ad finem nostrum admodum utilis est; quia innuit ad intenerationem partium obstinatarum per detentionem spiritus.

CANON IX.

Inteneratio partium duriorum bene procedit, cum spiritue nec evolet nec generet.

EXPLICATIO.

Iste canon solvit nodum et difficultatem in operatione intenerandi, per detentionem spiritus: si enim spiritus non emissus deprædetur omnia intus, nil fit lueri ad inteneratiouem partium, in esse suo; sed potius solvuntur illæ et corrumpuntur. Itaque una eum detentione refrigerari debent spiritus et astringi, ne sint nimis aetivi.

CANON X.

Calor spiritue ad viriditatem corporis debet eeee robuetue, non acrie.

EXPLICATIO.

Etiam iste canon pertinet ad solvendum nodum supradietum, sed longe latius patet; describit enim, qualis debeat esse temperamenti ealor in eorpore ad longævitatem. Hoc vero utile est, sive spiritus detineantur, sive non; uteuuque enim talis debet esse calor spirituum, ut vertat se potius in dura, quam deprædetur mollia: alterum enim desieeat, alterum intenerat. Quinetiam, eadem res valet ad alimentationem bene perfieieudam; talis enim ealor optime exeitat faeultatem assimilandi, atque una optime præparat materiam ad assimilandum. Proprietates autem hujusmodi caloris tales esse debent; primo ut tardus sit, nec subito ealefaciat: seeundo, ut non sit admodum intensus, sed mediocris: tertio, ut sit æqualis, non ineompositus, seilieet se intendeus et remittens: quarto, ut, si inveniat ealor iste, quod ei resistat, non facile suffocetur aut langueat. Subtilis ndmodum hæc operatio; sed cum sit ex utilissimis, nou deserenda est. Nos vero in remediis (quæ ad indeudum spiritibus calorem robustum, sive eum, quem vocamus fabrilem, non prædatorium, proposuimus) huie rei aliqua ex parte satisfeeimus.

CANON XI.

Spirituum deneatia in substantia sua valet ad longævitatem.

EXPLICATIO.

Subordinatus est eanon ad præeedentem; etenim spiritus densior susciput omnes illas quatuor ealoris proprietates, quas diximus. Modi autem densationis in prima ex deeem operationibus habentur.

CANON XII.

Spiritus in magna copia et magie feetinat ad exitum, et magis deprædatur, quam in exigua.

EXPLICATIO.

Clarus est per se canon iste, eum quantum ipsum regulariter augeat virtutem; atque eernere est in flammis, quod quanto fuerint majores, tanto et erumpant fortius, et absumant eelerius. Itaque nimia eopia, aut turgeseentia spiritus, prorsus nocet longævitati: neque amplior est optanda eopia spirituum, quam quæ muuiis vitæ, et bonæ reparationis ministerio sufficiat.

CANON XIII.

Spiritus æqualiter perfusus minus festinat ad exitum, et minus deprædatur, quam impariter locatue.

EXPLICATIO.

Non solum eopia spirituum secundum totum durationi rerum obest; sed etiam eadem eopia, minus refneta, similiter obest. Itaque quo magis fuerit spiritus eomminutus, et per niinima insinuatus, eo deprædatur minus. Dissolutio enim ineipit a parte, ubi spiritus est laxior; itaque et exereitatio, et frieationes, longævitati multum eonferunt: agitatio enim optime commiuuit, et eommiscet res per minima.

CANON XIV.

Motus spirituum inordinatus et eubeultorius magie properat ad exitum, et magis deprædatur, quam eonetans et æqualis.

EXPLICATIO.

In inanimatis tenet iste eanon eerto; inæqualitas enim dissolutionis mater; in animatis vero (qnia non solum speetatur eonsumptio, sed reparatio; reparatio autem procedit per rerum appetitus: appetitus rursus seuitur per varietatem) non tenet rigide; sed eousque tamen reeipiendus est, ut varietas ista potius sit alternatio quam eonfusio, et tnnquam eonstans in inconstantia.

CANON XV.

Spiritus in corpore eompagis solidæ detinetur, lieet invitus.

EXPLICATIO.

Omnia solutionem eontinuitatis suæ exhorrent; attamen pro modo densitatis aut tenuitatis suæ. Etenim, quo eorpora sunt magis tennis, eo in minores et angustiores meatus se eompelli patiuntur: itaque aqua subintrabit meatum, quem non subintrabit pulvis: aër etiam, quem non subintrabit aqua: quin flamma et spiritus, quem non subintrabit aër. Veruntamen est hujusce rei aliquis terminus; neque enim spiritus in tantum desiderio exeundi laborat, ut patiatur se diseontinuari nimis, et in nimis aretos poros aut meatus agi; itsque si spiritus, eorpore duro, aut etiam unctuoso et tenaci, (quod non facile dividitur,) eireumdetur, plane eonstringitur, et tanquam incarceratur, et appetitum exeundi posthabet; quare videmus metalla et lapides longo ævo egere, ut exeat spiritus; nisi aut spiritus igne exeitetur, aut partes crassiores aquis eorrodentibus et fortibus disjungantur. Similis est ratio tenaeium, qualia sunt gummi, nisi quod leniore calore solvantur. Itaque sueei eorporis duri, eutis eonstrieta, et similia, (quæ procurantur ab alimentorum siccitate, et exereitatione, et aëris frigore,) utilia sunt ad longævitatem: quia elaustra circumdant spiritui areta, ne exeat.

CANON XVI.

In oleosie et pinguibus detinetur spiritus libenter, lieet non eint tenacia.

EXPLICATIO.

Spiritus, si nec a corporis circumdati antipathia irritetur, nec a corporis nimia similitudine pascatur, nec a corpore externo solicitetur aut provocetur, non tumultuatur multum ad exeundum: quæ omnia oleosis desunt: nam nec tam spiritui infesta sunt, quam dura; nec tam propinqua, quam aquea; nec cum aëre ambiente bene consentiunt.

CANON XVII.

Evolatio cita humoris aquei conservat diutius oleosum in esse suo.

EXPLICATIO.

Diximus aquea, utpote aëri consubstantialia, citius evolare, oleosa tardius, ut com aëre minus consentientia: at cum humidum utrumque plerisque corporibus insit, evenit ut aqueum veluti prodat oleosum; nam illud sensim exiens, hoc etiam asportat. Itaque nil magis juvat ad corporum conservationem, quam siccatio lenis, quæ humorem aqueum exspirare faciat, nec oleosum solicitet; tum enim oleosum fruitur natura sua: neque hoc spectat ad inhibendam putredinam, (licet etiam et illud sequatur,) sed ad conservandam viriditatem. Hinc fit, ut fricationes mollea et exercitationes moderatæ, ad perspirationem potius quam ad sudorem, longævitati plurimum conferant.

CANON XVIII.

Aër exclusus confert ad longævitatem, si aliis incommodis caveas.

EXPLICATIO.

Diximus paulo ante, evolationem spiritus esse actionem duplicatam, ex appetitu spiritus et aëris. Quare si altera tollatur, haud parum proficitur; id quod ex inunctionibus præcipue exspectari debet. Attamen hoc sequuntur varia incommoda; quibus quomodo subveniatur, in operatione secunda ex decem annotavimus.

CANON XIX.

Spiritus juveniles, senili corpori inditi, naturam compendia retrovertere possint.

EXPLICATIO.

Natura spirituum est quasi rota suprema, quæ alias rotas in corpore humano circumagit. Itaque illa in intentione longævitatis primi poni debet. Huc accedit, quod facilior et magis expedita via patet ad alterandos spiritus, quam ad alia. Etenim duplex est operatio super spiritus; altera per alimenta, quæ est tarda, et tanquam per circuitum; altera (et illa gemina) quæ est subita, et spiritus recta petit: nempe per vapores, aut per affectus.

CANON XX.

Succi corporis subduri et roscidi faciunt ad longævitatem.

EXPLICATIO.

Ratio perspicua est, cum antea posuerimus dura et oleosa, sive roscida, ægrius dissipari. Illud tamen interest, (sicut etiam in operatione decima notavimus,) quod succus subdurus minus dissipabilis est, sed est simul mious reparabilis. Itaque commodum cum incommodo conjunctum est: neque possit propterea aliquod magnale per hoc præstari; at succus roscidus utrique rei satisfacit; itaque diligentius huic incumbendum.

CANON XXI.

Quicquid tenuitate penetrat, neque tamen acrimonia rodit, gignit succos roscidos.

EXPLICATIO.

Canon iste magis difficilis est practica, quam intellectu: manifestum est enim, quicquid bene penetrat, sed tamen cum stimulo aut dente, (qualia sunt omnia acria et acida,) relinquare, ubicunque transit, vestiginm nonnullum siccitatis et divulsioois; ut soccos induret, partes convellat; at contra, quæ penetrant mera tenuitate, tanqoam furtum et insinuative, absque violentia, irrorare et irrigare in transitu. De his in operatiooibus quarta et septima haud pauca descripsimus.

CANON XXII.

Assimilatio optime fit, cessante motu locali.

EXPLICATIO.

Hunc canonem in commentatione ad operationem octavam satis explicavimus.

CANON XXIII.

Alimentatio per exterius, aut saltem non per stomachum, longævitati utilissima, si fieri possit.

EXPLICATIO.

Videmus omnia, quæ per nutritionem peraguntur, fieri per loogas ambages; quæ vero per amplexus similium, (ut fit in infusionibus,) non longam requirere moram. Itaque utilissima foret alimentatio per exterius; atque eo magis, quod deciduæ sint facultates concoctionum sub senectute: quamobrem si possint esse nutritiones aliæ auxiliares, per balneationes, unctiones, aut etiam per clysteria, conjuncta possint proficere, quæ singula minus valeant.

CANON XXIV.

Ubi concoctio debilis est ad extrusionem alimenti, ibi exteriora confortari debent ad evocationem alimenti.

EXPLICATIO.

Non est hoc, quod in isto canone proponitur, eadem res cum præcedente; aliud enim est, si alimentum exterius intro trahatur, aliud, si alimentum interius extra trahatur: at in hoc concurrunt, quod debilitati concoctionum interiorum alia via subveniant.

CANON XXV.

Omnis subita renovatio corporis fit, aut per spiritus, aut per malacissationes.

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EXPLICATIO.

Duo sunt in corpore, spiritus et partes; ad utrumque longa via pervenitur per nutritionem; at viæ breves ad spiritus per vapores et affectus; et ad partes, per malacissationes. Illud autem paulo attentius notandum, quod nullo modo confundimus alimentationem per exterius cum malacissatioue; neque enim intentio est malacissationis, ut nutriat partes; sed tantum ut eas reddat magis idoneas ad nutriendum.

CANON XXVI.

Malacissatia fit per consubstantialia, imprimentia, et occludentia.

EXPLICATIO.

Manifesta ratio est, quod consubstantialia proprie malacisseot; imprimentia deducant; occludentia retineant, et perspirationem, quæ est motus malacissationi oppositus, cohibeant. Itaque (ut in operatioue nona descripsimus) malacissatio simul bene fieri non potest sed per seriem et ordinem: primum, exeludendo liquorem per spissamenta; quia extranea et crassa infusio non bene coagmentet corpus; subtile debet esse, et ex vaporis genere, quod intrat. Secundo, intenerando per consensum consubstantialinm: corpora enim ad tactum eorum, quæ valde consentiunt, se aperinnt, et poros laxant. Tertio, imprimentia vehicula sunt, et nonnihil consubstantialia ineuleant, et mistnra leniter astringentium, perspirationem interim paululum eohibet. At sequitur quarto loco magna illa astrietio et elausura per emplastrationem; et postea gradatim per inunctionem; donec malacnm vertatur in solidum, nt suo loco diximus.

CANON XXVII.

Crebra renovatio reparabilium irrigat etiam minus reparabilia.

EXPLICATIO.

Diximus in additu ipso historiæ hujus eam esse viam mortis, quod magis reparabilia in consortio minus reparabilium intereant; ut totis viribus in reparatione hnjusmodi partium minus reparabilium sit exsudandum; itaque admoniti Aristotelis observatione de plaotis, quod scilicet novitas ramorum trunenm ipsum in transitu reficiat; similem rationem fore arbitrati sumus, si sæpe reparentur earnes et sanguis in eorpore humano; ot inde ipsa ossa, et membranæ, et reliqua, qnæ natura minus sunt reparabilia, partim per transitum alaerem suceorum, partim per vestitum illum novum carnium et sanguinis recentiorum, irrigentur et renoventur.

CANON XXVIII.

Refrigeratio, quæ non transit per stomachum, utilis ad longævitatem.

EXPLICATIO.

Ratio præsto est, qoia eum refrigeratio non temperata, sed potens (præsertim sanguinis) ad vitam longam sit præcipue neeessaria; omnino hoc non fieri possit per intus, quaotum opus est, absque destructione stomachi et viscerum.

CANON XXIX.

Complicatia illa, quod tam consumptio, quam reparatio, sint caloris opera, maximum est obstaculum ad longævitatem.

EXPLICATIO.

Destruuntur fere omnia magna opera a naturis complicatis; eum qnod alia ratione juvet, alia noceat; atque hie librato judieio et sagaei praetica opus est; id nos, quantum res permittit et in præsentia occurrit, fecimus; separando calores benignos a nocivis; et ea, quæ ad utrumque faciunt.

CANON XXX.

Curatia morborum temporariis aget medicinis; at longævitas vitæ exspectanda est a diætis.

EXPLICATIO.

Quæ ex aeeidente superveniunt, sublatis eausis desinunt: at eursus naturæ eootiouus, instar fluvii labentis, etiam eontinua indiget remigatione aut velificatione in adversum: itaque operandum est regulariter per diætas. Diætæ autem genere duplices sunt; diætæ statæ, quæ eertis temporibus; et diæta familiaris, quæ in vietn quotidiana usurpari debet: potentiores autem sunt diætæ statæ, id est, series remediorum ad tempus. Etenim quæ tanta virtute pollent, nt natnram retro vertere valeant, fortiora sunt plerumque, et magis subito alterantia, quam quæ familiariter in usum recipi tuto possint. Atque in remediis nostris intentionalibus, tres tantum diætas statas reperias: diætam opiatam; diætam malaeissantem; et diætam emaciantem et renovantem. At inter ea, quæ ad diætam familiarem et vietom qnotidiannm præscripta a nobis sunt, efficacissima sunt hæc, quæ sequntur; qnæ etiam validitatem diætarum statarum fere æquant: nitrum, et subordinata ad nitrum; regimen affectuum, et studiorum genus; refrigeria, quæ non transennt per stomachum; potus roseidantes; perspersio sanguinis enm materia firmiore, ut margaritis, lignis; inuoetiones debitæ, ad cohibendum aërem et deteotionem spirituum: calefaetoria per exterius, tempore assimilationis post somnum; cautio de iis, quæ incendunt spiritum, induntque ei ealorem acrem, ut de viois et aromatibus; et nsus moderatus et tempestivus eorum, qoæ indont spiritibus calorem robnstum, ut eroci, nasturtii, alii, enulæ, opiatorum compositorum.

CANON XXXI.

Spiritus vivus interitum patitur immediate, cum destituitur, aut motu, aut refrigeria, aut alimento.

EXPLICATIO.

Snnt hæc scilieet illa tria, quæ superius vocavimus atriola mortis; suntqne passiones spiritus propriæ et immediatæ. Etenim organa omnia partium principalium serviunt, ut hæc tria officia præstentur: et rursns, omnis destruetio organorum, quæ est lethifera, eo rem deducit, ut unum, aut plura ex his tribus deficiant. Itsque alia omnia sunt diversæ

viæ ad mortem : sed in hæc desinunt. Fabrica autem partium, organom spiritus est; qnemadmodnm et ille, animæ rationalis; quæ incorporea eat et divina.

CANON XXXII.

Flamma substantia momentanea est: aër fixa: spiritus vivi in animalibus, media est ratio.

EXPLICATIO.

Res est hæc et altioris indagationis, et longioris explicationis, quam faciat ad inquisitionem præsentem. Sciendum interim flammam continenter generari et exstingui; nt per successionem tantum continnetnr. Aër autem corpus fixum est, nec solvitur; licet enim aër ex humido aqneo novnm sërem gignat; tamen vetus aër nihilo minus manet; unde fit super-oneratio illa aëris, de quo diximus in titulo de ventis. At spiritus utriusqne naturæ particeps est, et flammeæ et aëreæ; queinadmodum et fomites ejus sunt olenm, quod est homogeneum flammæ; et aër, qui est homogeneua aquæ. Spiritus enim non nutritur ex oleoso simplici, neque ex aqueo simplici, sed ex utroque: atque licet nec aër cum flamma, nec oleum cum aqua, bene componantur, tamen satis conveniunt in mixto. Etiam spiritus habet ex aëre faciles suas et delicatas impressiones et receptionea; a flamma autem, nobiles suos et potentes motus et activitates. Similiter etiam duratio spiritus res composita est, nec tam momentanea, quam flammæ, nec tamen tam fixa, quam aëria; atque eo magis non sequitur rationes flammæ, quod flamma etiam ipsa exstinguitur per accidens; nempe a contrariis et destruentibus circumfusis; quam causam et necessitatem non habet pariter spiritus. Reparatur antem spiritus ex sanguine vivido et florido arteriarum exilium, quæ insinuantur in cerebrum; sed reparatio ista suo modo, de quo nunc non est sermo.

HISTORIA ET INQUISITIO PRIMA

DE SONO ET AUDITU,

ET DE FORMA SONI, ET LATENTE PROCESSU SONI:

SIVE SYLVA SONI ET AUDITUS.

De generatione soni, et prima percnssione.

De duratione aoni, et de interitu et extinctione soni.

De confusione et perturbatione soni.

De adventitiis auxiliis et impedimentis soni.

De hæsione soni, et varietate mediorum.

De penetratione soni.

De delatione soni, et directione seu fusione ejus, et de srea quam occupat, simul, et separatim.

De corporum diversitate, quæ reddunt sonum; et instrumentis, et de speciebus soni, quæ occurrunt.

De multiplicatione, augmentatione, diminutione, et fractione sonorum.

De repercussione soni, et echo.

De conjugiis et dissidiis audibilium et visibilium, et aliarum, quas vocant, specierum spiritualium.

De celeritate generationis et extinctionis soni, et tempore in quo fiunt.

De affinitate, aut nulla affinitate, quam habet sonus cum motu aëris, in quo defertnr, locali et manifesto.

De communicatione aëris percussi et elisi cum aëre, et corporibus, vel spiritibus ipsorum, ambientibus.

De efformatione, sive articulatione soni.

De ipsissima impressione soni ad sensum.

De organo auditus, ejusque dispositione et indispositione, auxiliis et impedimentis.

De sono et auditu inter prima inquisitionem instituere visum est. Etenim expedit intellectui, et tanquam ad salubritatem ejus pertinet, ut contemplationes spiritualium (quas vocant) specierum, et operationum ad distans, misceantur cum contemplatione eorum, quæ operantur tantum per commnnicationem substantiæ ad tactum. Deinde observationes de sonis pepererunt nobia artem musicæ. Illud antem solenne est, et quasi perpetuum, cum experimenta et observationes coaluerint in artem, mathematicam et practicam intendi, physicam deseri. Quin etiam optica paulo melius se habet; non enim tantum pictura et pulchritudo et symmetria opticæ proponuntur; sed contemplatio omnium visibilinm. At musicæ, tantum toni harmonici. Itaque de sonis videndum.

DE GENERATIONE SONI, ET PRIMA PERCUSSIONE.

Collisio, sive elisio, ut vocant, aëris, quam volunt esse causam soni, nec formam nec latentem processum denotat soni, sed vocabulum ignorantiæ est et levis contemplationis.

Sonus diffunditur et labitur tam levi impulsu in sua generatione; item tam longe, idque in ambitum, cum non multum pendeat ex prima directione; item tam placide absque ullo motu evidenti, probuto vel per flammam, vel per plumas, et festucas, vel alio quovis modo; ut durum plane videatnr, soni formam esse aliqnam elisionem vel motum manifestum localem aëris, licet hoc efficientis vices habere possit.

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Quandoquidem sonus tam subito generetur, et continno pereat, necesse videtur ut aut generatio ejus nërem de sua natura paulnm dejiciat, atqne interitus ejus eum restituat; ut in eompressionibus aquarum, ubi eorpus in aquam injeetum eomplures eirculos effieiat in aquis, qui proveniunt ex aqua primnm compressa, deinde in suam consistentiam et dimensionem se restitnente (id quod motum libertatis appellare consuevimus); aut eontra, qnod generatio soni sit impressio grata et benevola, quæ se insinnat aëri, et ad quam libenter aër se excitat; et interitns ejus sit a vi aliqua inimiea, quæ aërem eo motu atque impressione dintius frui non sinit; ut in generatione ipsins eorporis flammæ, in qua generatio flammæ videtur fieri alacriter, sed ab aëre et inimieis circumfusis cito destrui.

Fistulatio, quæ fit per os sbsqne aliqua admota fistnla, possit effiei sugendo snhelitum versus interiora palati, non solum extrudendo anhelitum ad extra. Atque plane omnis sorbitio aëris ad interius dat sonum nonnullum. Quod dignum admodum notatu videatur: quia sonus generatur in eontrarium motus manifesti aëris, ut prima aëris impnlsio videatur plane effieiens remotum, nec sit ex forma soni.

Similiter si accipiatur vitreum ovum, atque per parvum foramen aër fortiter exsugatar; deinde foramen eera obturetur; et ad tempus dimittatur; post eera a foramine anferatnr; andies manifeste sibilum aëris intrantis in ovum, tractum scilieet ab aëre interiore, qui post violentam rarefaetionem se restituit. Ut hoc qnoque experimento generetur sonus in eontrarium motus manifesti aëris.

Similiter, in ludiero illo instrumento, quod vocatur lyra Judaica, tenendo latera inter dentes vibratur lingula ferrea traeta ad exterius, sed resilit interius ad aërem in palato, et inde ereatur sonus.

Atque in his tribus experimentes dubium non est quin sonus generetur per pereussionem aëris introrsum versus palatum aut ovum vitreum.

Generatur sonus per percussionis. Pereussio illa fit, vel aëris ad aërem, vel eorporis dnri ad aërem, vel eorporis duri ad eorpus durum.

Exemplum pereussionis aëris ad aërem maxime viget in voce humana et in vocibus avinm, et aliorum animalium; deinde in instrumentis musieis, quæ exeitantnr per inflationem: etiam in bombardis et sclopetis, ubi perenssio edens sonum generatur maxime ex pereussione aëris conelusi, exeuntis ex ore bombardæ aut sclopeti ad aërem externum. Nam pila indita non multum facit ad fragorem. Neqne percussio eorporis mollis ad eorpus molle tantum reprœsentatur in percussione aëris ad aërem; verum et aëris ad flammam, ut in exeitatione flammæ per folles; etiam flammæ inter se, alia aliam impellens, reddunt quendam mugitum; utrum vero interveniat aër, inquiratur ulterius. Etiam omnis fiamma subito eoncepta, si sit alicujus amplitndinis, excitat sonum summovendo (nt arbitror) aërem magis quam ex esse: etiam in eruptionibus fit pereussio spiritus erumpentis ad aërem ambientem; ut in crepitaeulis quæ finnt ex foliis siecis, ant sale nigro, et multis aliis immissis in ignem; et in tonitru, vel erumpente spiritu e nube, vel volutante et agitato, ut fit in tonitru magis surdo et prolongato; etiam solet (ad ludicrum) folium rosæ viridis contractum ut aerem eontineat, super dorsum manus aut frontem pereussum, erepare per eruptionem aëris.

Exempla pereussionis corporis duri ad aërem ostendunt se in instrumentis musicis sonantibus per ehordas; in sibilo sagittæ volantis per sërem; in flagellatione aëris, licet non pereutiat corpus durum, etiam in organis musicis editur sonus per aërem percutientem aquam in fistula illa, quam vocant lusciniolam, quæ reddit sonum perpetuo tremulum, in mota aqua, et rursus se receipiente: etiam in ludicris instrumentis, qnibus se oblectant pneri (Gallos voeant) ad imitationem vocum avinm: similiter in aliis hydraulicis.

Exempla pereussionis corporis duri ad eorpns dnrum se ostendunt vel simplieiter, vel cum eommunicatione aëris nonnihil eonelusi, præter illum aërem, qui seeatur sive eliditur inter corpora dnra percussa; simplieiter, nt in omni malleatione, seu pulsatione eorporum durorum; eum communicatione aëris inelusi, ut in eampanis et tympanis.

Lapis injectus fortiter in aquam reddit sonum; atque etiam guttæ pluviæ cadentes super aquam; nec minus unda pulsans undam: in quibus pereussio fit inter eorpus durum et aquam.

Videtur in generatione omnis soni illud eonstans esse, ut aliquæ sint partes aëris, utque requiratur aër inter eorpora percussa; qui aër, in pereussione corporis duri ad aërem, et eorporis duri ad corpus durum, videtur manifesto secari aut elidi. Arbitror flammam ad hoc posse sufficere, vice aëris: veluti si inter flammas majores sonet eampana, aut lapides pereutiantur: at in percussionibus aëris ad aërem elisio ant separatio illa videtur obscurior, sed tantum videtur aër verberari et impelli, idque molliter admodum in voce leni. Attamen neeesse videtur, etiam in hoc genere, ut sit aliqua elisio aëris percussi per aërem pereutientem: nam etiam in aëre moto per flabellum, aër a latere, et emisso aëre per folles, currens ille aëris, qui emittitur, dividit reliquum aërem. Verum de hoc genere elisionis aëris, quod fit ubi aëris pereussio ad aërem edit sonum, ut in voce, inquiratur ulterius.

Merito dubitatur, utrum pereussio illa, quæ edit sonnm eum aër perentitur per ehordam, aut alias, fiat ab initio, eum aër resiliente ehorda pereutitur; aut paulo post, videlicet densato per primam percussionem aëre, et deinde præstante vices tanquam eorporis duri.

Ubi redditur sonus per percussionem aëris ad aërem, requiritur ut sit incareeratio aut eonelusio aëris in aliquo eoncavo; ut in fistulando per os, in tibiis; in barbito; in voce, quæ participat ubi aër ineladitur in eavo oris aut guttnris. In pereussione corporis duri ad aërem requiritur durities eorporis, et eitus motns; et interdum eommunicatio eum eoncavo, ut in cithara, lyra, flagellatione aëris, ete. At in pereussione eorporis duri ad eorpus durum minus requiritur eoneavum, aut eeler motus.

Fabulantur de pulvere pyrio albo, qui præstaret pereussionem absque sono. Certnm est nitrum, quod est album, ad exsufflationem plurimum valere, ita tamen ut pernieitas incensionis et pereussionem

et sonum multum promoveat: cita autem incensio ex carbone salicis maxime causatur, qui est niger. Igitur si fiat compositio ex sulphure et nitro et ex modico camphoræ, fieri potest ut incensio sit tardior, et percussio non ita vibrans et acuta: unde multum possit diminui de sono; sed etiam cum jactura in fortitudine percussionis. De hoc inquiratur ulterius.

DE DURATIONE SONI, ET EJUS INTERITU ET EXTINCTIONE.

Duratio soni campanæ percussæ aut chordæ, qui videtur prolongari et sensim extingui, non provenit utique a prima percussione: sed trepidatio corporis percussi generat in aëre continenter novum sonum. Nam si prohibeatur illa trepidatio, et sistatur campana aut chorda, perit cito sonus; ut fit in espinettis, ubi si dimittitur spina, ut chordam tangat, cessat sonus.

Campana pensilis in aëre longe clariorem et diuturniorem reddit sonum, licet percutiatur malleo ad extra, quam si staret fixa, et similiter malleo percutiatur. Atque de diuturniore sono reddita est jam ratio, quia trepidat diutius. Quod vero etiam primitivus sonus in pensili sit magis sonorus, in stante minus, amplius inquirendum est.

Similiter scyphus argenteus aut vitreus, talitro percussus, si sibi permittatur, sonum edit clariorem et diuturniorem; quod si pes scyphi altera manu teneatur fixus, longe hebetiorem et brevioris moræ.

Qui redditur in barbito aut cithara sonus, manifesto non fit a percussione inter digitum, aut calamum, et chordam; seu inter digitum, aut calamum, et aërem: sed impellente digito, ac tum resiliente chorda, et resiliendo percutiente aërem. Itaque cum chorda movetur plectro, non digito, aut calamo, continuari potest sonus ad placitum, propter asperitatem fili plectri resina parum obducti; unde non labitur per chordam, nec eam semel percutit, sed hæret, eamque continenter vexat; ex quo motu sonus continuatur.

Potest sumi in argumentum, quod sonus sit planc genus quoddam motus localis in aëre, quod ita subito pereat. Quia in omni sectione aut impulsione aëris, aër affatim se recipiat et restituat; quod etiam aqua facit per multos circulos, licet non tam velociter quam aër.

DE CONFUSIONE ET PERTURBATIONE SONI.

In actu visus visibilia ex una parte non impediunt visibilia ex aliis partibus; quin universa quæ se offerunt undiquaque visibilia, terræ, aquæ, sylvæ, sol, ædificia, homines, simul ob oculos repræsentantur. Quod si totidem voces aut soni ex diversis partibus simul salirent, confunderetur plane auditus, nec ea distincte percipere posset.

Major sonus confundit minorem, ut nec exaudiatur: at species spirituales (ut loquuntur) diversi generis a sono, non confundunt sonum, sed omnia simul et semel hærent in aëre, alterum altero parum aut nihil conturbante; veluti lux, aut color, calor et frigus, odores, virtutes magneticæ; omnia hæc simul possunt hærere in aëre, nec tamen magnopere impediunt vel conturbant sonos.

Causa cur plura visibilia simul ad oculum repræsentantur, altero alterum non confundente, ea omnino esse videatur; quod visibilia non cernuntur, nisi in linea recta; at soni audiuntur etiam in obliqua, aut arcuata. Itaque in area sphæræ visus quot objecta deferuntur, tot sunt coni radiorum; neque unquam alter conus in alterum coincidit; neque vertices conorum in idem punctum concurrunt, quia deferuntur in lineis rectis. At soni, qui deferuntur per lineas, et rectas, et arcuatas, possunt facile in unum punctum concurrere, itaque confunduntur. Eadem videtur causa, cur color magis vividus colorem magis obscurum non mergat; at lux major lucem debiliorem obscurat et condit; quia lux cernitur in linea arcuata, quemadmodum et sonus. Nam licet flamma ipsa candelæ non cernitur nisi in linea recta, tamen lux undique circumfusa perfertur ad visum in lineis arcuatis, quoad corpus candelæ: similis est ratio solis, aut flammæ. Quod si opponatur, neque ipsam lucem cerni nisi in recta linea ab aëre illuminato, verum est: verum id arbitror etiam accidere sono; neque enim auditur sonus nisi in lineis rectis ab aliqua parte sphæræ soni, quo prima pulsatio pertingit. Attamen color, qui nihil aliud est quam lucis imago inæqualiter reflexa, tam debiles circumfundit species, ut aërem circumfusum parum aut nihil tingat, nisi ubi deferuntur colores in lineis rectis inter objectum et oculum.

Fiat experimentum in aulo (Anglice "a recorder") duplici, in quo sit labrum, et lingua, et guttur, ad utrumque finem, ita ut applicentur ad unisonum: cava autem fistula existente duplici et continuata, sonent duo simul cantionem eandem ad utrumque finem, ac notetur utrum confundatur sonus, an amplietur, an hebetetur.

Accipiantur duo cavi trunci, et conjungantur in modum crucis, ita ut in loco ubi connectuntur sint pervii; et loquantur duo ad directum et tranversum truncum, et applicentur similiter aures duorum ad fines oppositos, et notetur utrum voces se invicem confundunt.

DE ADVENTITIIS AUXILIIS ET IMPEDIMENTIS SONI; DE HÆSIONE SONI, ET VARIETATE MEDIORUM.

Memini in camera Cantabrigiæ nonnihil ruinosa, ad suffulcimentum erectam fuisse columnam ferream, crassitudinis pollicis fortasse et dimidii, eam columnam, baculo aut alias percussam, lenem sonum exhibuisse in camera ubi stabat columna, at in camera quæ subtus erat bombum sonorum.

Inquirendum, quæ corpora, et cujus soliditatis, et crassitudinis, omnino arceant et excludant sonum; atque etiam quæ magis aut minus eum hebetent, licet omnino non intercipiant. Neque enim adhuc constat, quæ media interjecta magis propitia sint, quæ magis impedientia. Itaque fiat experimentum in auro, lapide, vitro, panno, aqua, oleo, et eorum crassitudine respectiva. De hoc omnino inquirendum est ulterius.

Aër medium ad sonum est maxime propitium, et quasi unicum. Rursus, aër humidior (arbitror) magis defert sonum quam siccior: at in nebula quid fit, non memini. Nocturnus etiam magis quam diurnus: verum id silentio assignari potest.

Inquiratur de medio flammæ, qualis sit operationis

versus sonum ; utrum videlicet flamma alienjus eras-aitudinis omnino arceat et intercipiat sonnm, ant saltem eum magis hebetet, quam aër. In ignibus Jubili hoc experiri licet.

Inquirendum etiam de medio aëris vehementer moti. Licet enim ventus deferat sonnm, arbitror tamen ventos vehementiores nonnihil turbare sonum, ut minus longe exaudiatur, etiam secundum ventnm, quam in tranquillo : de quo inqniratur ulterius.

Videndum qualem reddit sonnm æs, aut ferrum ignitum malleo pereussum, comparatum ad eum quem reddit frigidum.

DE PENETRATIONE SONI.

Lapis aëtites habet tanquam nucleum aut ovum lapidis, qui agitatus reddit sonum obtusum ; item tintinnabula ; sed longe clariorem, si detur rima.

Inquiratur ab urinatoribus, si omnino audiant subter aquam, præsertim profundiorem : atque inquiratur plane utrumque ; non tantum utrum audiant sonum aliquem de supra, qui editur in aëre ; sed etiam utrum audiant percussionem eorporis aquæ intra aquam, nbi non est aër. Experius hoc sum in balneo ; demittebatur situla bene capax ; ita autem demittebatur ore inverso in æquilibrio, ut omnino in concavo suo deferret seeum aërem subter aquam ad altitudinem palmæ unius ; atque ad hunc modum tenebatur situla manibus depressa, ne everteretur aut resurgeret : tum urinator inserebat caput in concavum situlæ, et loquebatur : exaudiebatur vox loquentis ; etiam sermo intelligebatur articulatim, sed mirum in modum acutus, et instar sibili fere, qualis in puparum ludo vox exaudiri solet.

Inquiratur illud exacte, ut reddatur omnino positivum, utrum possit generari sonus, nisi sit aër inter percutiens et percussum eorpus. Veluti demittantur duo lapilli pensiles per filum in pelvim aquæ vel flumen, et agitentur ut perentiant se invicem in medio aquæ ; vel mittntur foreeps apertus in medium aquæ, et ibi claudatur : et notetur utrum edat sonum, et qualem. Equidem existimo urinatores, eum natant, subter aquam non edere sonum ; nisi fortassis aliquis esse possit per sueeessionem motns ad superficiem aquæ, atque inde pereutiente aqua aërem.

Dubinm non est, quin in utribus elausis, nec prorsus impletis, et agitatis, reddatur sonus, liquoris scilicet in iis contenti : nec minus redditur sonus demisso lapide in aquam, eum pereutiat fundum vasis. Verum in primo experimento admiscetur aër ; in secundo pereussio fundi vasis per lapillum communicat eum aëre extra vas. At post pereussionem primam non necesse est ut aër sit in medio per universam aream sphæræ deferentis : nam id evincitur per experimentum loquentis in situla subter aquam, ubi pars deferentis ex uqua non est aër, sed lignum situlæ, et aqua ; unde acuitur et minuitur sonus, et extinguitur.

Quoniam autem manifestum est, per eorpora dura (velnt terram figularem et vitrum) transire et penetrare sonum ; idque etiam eertissimum est (licet adhue hominum observationem latuerit) inesse in omni eorpore tangibili pneumaticnm qniddam præter partes crassas intermixtum, videndum num hujusmodi penetratio soni non inde fiat, quod partes pneumaticæ sive aëreæ corporis tangibilis communicent cum aëre externo.

Accipe catinum aquæ argenteum, alterum ligneum ; accipe foreipem ferream, et perente fines ejus intra aquam in catinis illis, in distantia latitudinis pollicis fortasse aut ampline a fundo : audies sonum foreipis pereussæ in catino argenteo magis multo sonorum, quam in ligneo. Quod si tamen vacua forent catina, et pereuteretur foreeps ad eandem distantiam, parum ant nihil interesset. Ex quo liquet primum, nbi nullus est aër, qui possit elidi, sed tantum aqua, edi sonum ; deinde, melius communicari sonnm editum per perenssionem eum catino per aquam, quam per aërem. Clauso ore fortiter redditur mnrmnr (quale solet esse mntorum) per palatum ; qnod si nares etiam fortiter obturentur, nullum possit fieri murmur. Unde liqnet, sonum illum per palatnm non aetuari, nisi per apertum quod interecedit inter palatum et nares.

DE RELATIONE SONI, ET DIRECTIONE SEU FUSIONE EJUS ; ET DE AREA QUAM OCCUPAT, SIMUL, ET SEPARATIM.

Omnis sonus diffunditur in ambitnm sphæricnm a loco pulsationis, et occupat universam aream ejus sphæræ ad terminum certum, sursum, deorsum, lateraliter, undequaque.

Per aream ejus sphæræ fortissimus est sonus juxta pulsationem : deinde seeundum proportionem distantiæ elanguescit, et demum evanescit.

Termini ejns sphæræ extenduntur, pro acumine auditus, aliquatenus ; sed est quiddam ultimum, quo, in sensu maxime exquisito, non pertingit sonus.

Est (arbitror) nonnihil in direetione primæ impulsionis. Si quis enim staret in suggesto aperto in campis, et elamaret, longius arbitror exaudiri posset vox in prorsum a loquente, quam pone. Sie si displodatur bombarda, vel sclopetns, longius arbitror exaudiri possit sonus in prorsum a bombarda, aut selopeto, quam pone.

Utrum aliquid sit in ascensione soni sursum, aut in descensione soni deorsum, quod sonum promoveat in ulterius, aut eessare faciat proprius, non constat. Auditur quidem plane sonus, si quis ex alta fenestra aut turri loqnatur, ab iis qui stant in solo ; et contra, editus ab iis qui in solo stant, a fenestra, aut turri : sed ab utris facilius, aut longius, de eo inquiratur ulterius.

Solent in eoncionibus usurpari suggesta, et in coneionibus imperatoriis monticelli ex cespitibus ; sed minime tamen per hæc evineitur sonum facilius defluere, quam insurgere ; quoniam hujus rei possit esse causa liber in loco altiore aër, nec obstipatus aut impeditus, ut fit infra in turba ; non autem motus proclivior in deorsum. Itaque in hoc experimento non aequiescat contemplatio, sed fiat experimentum ubi cætera sint paria.

Vis soni excipitur tota in qualibet parte aëris, non tota in toto aëre, nisi foramen ant meatns fuerit valde exilis ; nam si stet quis in loco aliquo maxime elauso, ita nt non penetret sonns omnino, idque in quaeinque parte sphæræ soni, et fiat foramen parvum, vox artieulata intrabit per illud foramen, et denique per tot foramina quot placuerit terebrare per

universum ambitum sphæræ soni: ut manifestum sit totam illam articulationem soni deferri integram per minusculas illas partes aëris, non minus quam si aër esset undique apertus.

Attendendum tamen est, utrum soni editi ex pulsationibus majoribus aëris (quales fiunt ex displosionibus bombardarum) non deveniant exiliores cum intrent illa parva foramina. Subtilitates enim sonorum forte intrare possunt non confusæ, sed universus fragor neutiquam. De hoc inquiratur ulterius.

Radii eorporum visibilium non feriunt sensum, nisi deferantur per medium in directum, et interpositio corporis opaci in linea recta intercipit visum, licet alia omnino fuerint undequaque aperta. Verum sonus, si detur delatio, vel meatus, vel arcuando per aursum, vel inversa arcnatione per deorsum, vel lateraliter, vel etiam sinuando, non perit, sed pervenit. Attamen arbitror fortius deferri sonum per lineas direetas inter pulsationes et aurem, et frangi nonnihil impetum per arcuationes et per sinuationes; veluti si paries sit inter loquentem et audientem, arbitror vocem non tam bene exaudiri quam si abesset paries. Arbitror etiam si paulo longius collocetur, vel loqnens, vel audiens a pariete, melius exaudiri vocem quam prope parietem, quia arcuatio tanto minus abit a linea recta. Verum de hoc inquiratur ulterius.

Admota aure ad alterum terminum tubi alieujus, aut eavi trunei longi, et voce submissa ad alterum orifieium tubæ, exaudiri possit vox talis, quæ eadem submissione edita ad aërem apertum non pertingeret, nec exaudiretur. Unde liquet, clausnram illam aëris eonferre ad deferendam vocem absque confusione.

Etiam communis est opinio, melius exaudiri vocem, cæteris paribus, sub tecto, qnam sub dio: utrum vero melius exaudiatur vox, aure eollocata in aperto, voce in tecto; aut contra, aure in tecto, voce in aperto, inquiratur ulterius; lieet etiam in hoc communis sit opinio, melius exandiri qnæ foras sunt in ædibus, quam quæ in ædibus foras.

Commune est auditui ac visui, ac etiam qnadantenus cæteris sensibus, ut intentio animi sentientis et directio expressa ad percipiendum nonnihil juvet; ut eum quis dirigit intuitum, aut (ut loquuntur) arrigit aures.

Soni non perferuntur æque longe articulati, et distineti, quam species, et glomeratio ipsorum confusa: nam strepitus vocum exaudiri potest, ubi voces ipsæ articulatæ non audiuntur; et tinnitus musicæ confusus, eum harmonia ipsa aut eantio non exaudiatur.

In trunco eavo optime conservatur sonus. Igitnr accipiatnr truneus eavus, bene oblongus, et demittatur extra fenestram eameræ humilioris; loquatur quispiam exercndo eaput extra fenestram ad unnm terminum trunci, quam maxime potest submisse; apponat alter aurem ad alterum terminum trunci, stans infra in solo: fiat similiter hoc via versa, loqnendo infra, aurem apponendo supra; atqne ex hoc experimento fiat judicium, ntrum vox ascendat aut descendat proclivius, aut etiam pariter.

Tradunt pro eerto esse loca et ædifieia nonnulla ita eoneamerata, ut si quis stet in quadam parte cameræ, et loquatur, melius exaudiri possit ad distantiam nonnullam, quam prope.

Omnis concentns paulo gravins et profundius sonare videtur, si removeatur nonnihil a sono edito, quam prope: ut simile quiddam videatur accidere auditui circa sonum, quale accidit visui circa species visibiles, nt nonnulla distantia ab organo sensus promoveat perceptionem sensus.

Verum fallax potest esse ista opinio, idque dupliciter. Primo, quod in aetu visus requiruntur forte radii ab objecto ad pupillam, qui nnlli possunt esse ubi objectum tangit pupillam; id quod inter auditum et sonnm non reqniritur; sed multo magis, quod ad videndum opus est luee. Objectum autem tangens pupillam intercipit lueem: at nihil hujusmodi auditui competit. Secundo etiam, quia in visu non semper desideratnr medium: quandoquidem in tollendis cataractis oculorum, stylus ille parvus argenteus, qno summoventur eataractæ, etiam super pupillam intra tunieulam oculi movens, optime eernitur.

In objectis visus, si eollocetur oculus in tenebris, objeetum in luee, bene habet; si objectum in tenebris, oculus in luce, non fit visio. Ita si velum tenne ponatur ob oculos, aut reticulum, objeetum bene eernitnr; si super objeetum, confundit visum. Atque licet fortasse neutrum horum competat sono et auditui, tamen monere possunt, ut fiant experimenta, utrum auris eollocata juxta truncum eavnm, si sonus fiat ad distans in aperto; aut, via versa, sonns excitatus ad eavum truneum, auris autem ponatur ad distans in aperto, promoveat magis perceptionem sensus.

DE CORPORUM DIVERSITATE, QUÆ REDDUNT SONUM, ET INSTRUMENTIS, ET DE SPECIEBUS SONI, QUÆ OCCURRUNT.

Genera sonorum talem videntur subire partitionem: magnus, parvus; acutus, gravis; harmonieus, absonus; summissus, sive susurrans, exterinr sive sonans; simplex, eompositns; originalis, reflexus: ut sint partitiones sex.

Quo fortior fuerit prima pulsatio, et delatio liberior, et absque impedimento, eo major editur sonus: qno debilior percussio, et magis eonturbata delatio, eo minor.

Acuti soni deferuntur æqne longe, et fortasse longius, qnam graves. De hoc melius inqniratur.

Prout majus fuerit eoncavum eampanæ, eo graviorem edit sonum; qno minus, acutiorem.

Quo major fnerit ehorda, eo reddit sonum graviorem; quo minor, aeutiorem.

Qno intentior fuerit ehorda, eo reddit sonnm aeutiorem; quo laxior, graviorem: nt chorda paulo major strietius extensa, et minor laxins, eundem possint reddere sonum.

In tubis similiter, et tibiis, et eornibus, et fistnlis, atque etiam in ore hominis fistulantis, quo angustinra sunt et magis eontracta, eo reddunt sonum aeutiorem; quo latiora aut laxiora, graviorem.

In tibiis, aër exiens ex foramine propiore ad spiritum, reddit sonum acutiorem; e longinquiore, graviorem: ut tibia paulo major ad foramen propius, et minor ad longinquius, eundem possint reddere sonum.

In instrumentis chordarum nonnullis (ut in barbito, citharis, et similibus) invenerunt homines com-

moditatem ad extensionem earum præter extensionem primum, ut comprimentes eas digitis, inferius, aut superius, eas extendant ad alterationem soni.

Si accipiatur scyphus vitreus aut argenteus, et talitro percutiatur, si aqua in scypho altius ascenderit, et scyphus plenior fuerit, reddit sonum acutiorem; si humilius, et scyphus magis vacuus fuerit, graviorem.

In trunco cavo, quali ad aves percutiendas utuntur, si quis ore fistulet, admoto ore ad alterum finem trunci, hebetatur scilicet sonus ad astantem; at si applicetur auris ad alterum finem, reddit sonum acutissimum, ut vix tolerari possit.

Fiat experimentum in truncо ex parte ubi collocatur auris angusto, ex parte ubi collocatur os latiore (et e converso) utrum sonus reddatur acutior, aut gravior, in modum specularum, quæ contrahunt aut ampliant objecta visus.

DE MULTIPLICATIONE, AUGMENTATIONE, ET DIMINUTIONE, ET FRACTIONE SONI.

Videndum quomodo possit artificialiter sonus majorari et multiplicari. Specula utrumque præstant in visu. Videtur autem reflexio subita soni verti in augmentum: nam si vox et echo simul reddantur, necesse est ut non distinguatur sonus, sed majoretur. Itaque soni super flumina ampliores sunt, resonante aqua, et se uniente cum sono originali.

Etiam notavi, facta æde rotunda in conductibus (ut loquuntur) aquarum, et deinde caverna oblonga, ac tum æde majore (quale est videre in campis juxta Charing-cross prope Londinum) si fiat clamor per fenestram, aut rimam ædis rotundæ, et stet quispiam juxta fenestram ædis majoris, longe terribiliorem eieri rugitum, quam fit ad aurem alicujus astantis prope ubi fit clamor.

Memini in joculari Indo puparum, locutionem ita edi, ut audiatur distincte, sed longe acutior et exilior quam in aperto; ut fit in speculis, quæ reddunt literas longe minutiores quam sunt in medio ordinario: ita ut videatur plane sonus per artem reddi posse, et amplior et exilior.

Tenent pueri cornu arcus tensi inter dentes, et sagitta percutiunt chordam, unde redditur sonus magis sonorus, et quasi bombus longe major, quam si arcus non teneretur a dentibus: quod imputant consensui quem habent ossa dentium cum ossa auditus; quandoquidem et, via versa, ex stridore in auditu etiam dentes obstupescant.

Similiter tangat hasta lignum cavi lyræ, præsertim foraminis in ipso ad cavum finem, et teneatur dentibus ex altero fine, et sonet lyra; major fit sonus per prehensionem dentium, ei scilicet qui prehendit.

Certissimum est (licet non animadversum) quod vis illa, quæ post primam percussionem defert pilas, aut sagittas, aut spicula, et similia, consistat in partibus minutis corporis emissi, et non in aëre perpetuo deferente, instar scaphæ in aqua. Hoc posito, videndum utrum non possit diminui sonus in bombarda, aut sclopeto, absque magna debilitatione percussionis, hoc modo. Fiat sclopetum cum tubo bene forti, ut non facile frangatur; fiant in tubo quatuor aut quinque foramina, non instar rimarum, sed rotunda circa medium tubi. Percussio suas jam acceperit vires, nisi quatenus ratione longitudinis tubi augeantur: at percussio aëris ad exitum sclopeti, quod generat sonum, multum extenuabitur ab emissione soni per illa foramina in medio, antequam aër inclusus perferatur ad os sclopeti. Itaque probabile est, sonum illum et bombum multis partibus diminutum fore.

DE REPERCUSSIONE SONI, ET ECHO.

Repercussio sonorum (quam echo vocamus) in argumentum sumi potest, non esse sonum motum localem aëris. Nam si esset, debuerat repercussio fieri in modo consimili ad originale; ut fit in omnibus repercussionibus corporeis. At in sono, cum tam accurata requiratur generatio, ut in voce, quæ tot habet instrumenta, et in instrumentis musicis, quæ subtiliter fabricata sunt, ea, quæ reddunt sonum repercussum, nihil horum habent, sed rudia plane sunt, et illud fere habent, ut sonus non transeat, vix aliud quippiam.

DE CONJUGIIS ET DISSIDIIS AUDIBILIUM ET VISIBILIUM, ET ALIARUM, QUAS VOCANT, SPECIERUM SPIRITUALIUM.

CONVENIUNT IN HIS.

Ambo diffunduntur in circuitum sphæricum, et occupant universam aream ejus sphæræ, et feruntur ad spatia bene longinqua, et elanguescunt paulatim secundum distantiam objecti, deinde evanescunt. Ambo deferunt figuras et differentias suas, per portiones minutas sphæræ suæ integras et inconfusas; ut percipiantur per foramina parva non secus quam in aperto.

Ambo sunt generationis et delationis valde subitæ ac celeris; ac e contra extinguuntur et pereunt subito et celeriter.

Ambo suscipiunt et deferunt minutas differentias et accuratas, ut colorum, figurarum, motuum, distantiarum in visibilibus; vocum articulatarum, tonorum harmonicorum, et pernicis alterationis sive trepidationis ipsorum in audibilibus.

Ambo in virtute et viribus suis non videntur vel emittere aliquam corporalem substantiam in media sua, aut ambitum sphæræ suæ; nec etiam edere aut ciere manifestum motum localem in mediis suis, sed deferre quasdam species spirituales, quarum ignoratur ratio et modus.

Ambo videntur non generativa alicujus alterius virtutis aut qualitatis præter virtutem propriam, et eatenus operari; alias sterilia esse.

Ambo in propria sua actione videntur tria quasi corporaliter operari. Primum, quod fortius objectum mergat et confundat debilius, ut lux solis lucem candelæ, displosio bombardæ vocem. Secundum, quod excellentius objectum destruat sensum debiliorem, ut lumen solis oculum, sonus violentus in proximo ad aurem auditum. Tertium, quod ambo repercutiuntur, ut in speculis et echo.

Neque objectum unius confundit aut impedit objectum alterius; velut lux aut color, sonum, aut e contra.

Ambo afficiunt sensum in animalibus, idque ob-

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jectis secundum magis aut minus gratis aut odiosis: attamen afficiunt etiam modo suo inanimata proportionata et organis sensuum (ut videtur) conformia; ut colores speculum, quod crystallinum est instar oculi; soni locos reverberationis, qui videntur etiam similes ossi et cavernæ auris.

Ambo operantur varie, prout habent media sua bene aut perperam disposita.

Ad ambo medium magis conducibile et propitium est aër. In ambobus, in objectis accuratioribus, nonnihil affert intentio sensus, et quasi erectio ejus ad percipiendum.

DIFFERUNT IN HIS.

VIDENTUR species visibilium esse tanquam emissiones radiorum a corpore visibili, instar fere odorum. At species audibilium videntur magis participare ex motu locali, instar percussionum quæ fiunt in aëre: ut cum dupliciter plerumque operentur corpora, per communicationem naturæ suæ, aut per impressionem aut signationem motus, videatur diffusio illa in visibilibus magis ex primo modo participare, in audibilibus ex secundo.

Videtur delatio sonorum magis manifesto deferri per aërem, quam visibilium. Neque enim, arbitror, ventus vehemens tantum impedire potest aliquod visibile a longe, quam sonum; flante, intelligo, vento in contrarium.

Insignis est illa differentia, unde etiam plurimæ minores differentiæ derivantur, quod visibilia (excepta luce originali) non feruntur nisi per lineas rectas, cum soni deferantur per lineas arcuatas.

Hinc fit quod visibilia alia alia non confundant simul repræsentata; soni contra. Hinc fit quod soliditas substantiæ non videatur impedire visum magnopere, modo posituræ partium corporis sint ordine simplici et per rectos meatus, ut in vitro, aqua, crystallo, adamante: at parum panni serici aut linei rumpit visum, cum sint corpora valde tenuia et porosa; at hujusmodi panni parum aut nihil impediunt auditum, ubi solida illa quam plurimum. Hinc fit quod ad reverberationem visibilium sufficiat parvum speculum, aut simile corpus perspicuum, modo ponatur in linea recta, ubi visibilia meant; at ad faciendam reverberationem echus oportet sonum etiam a lateribus includere, quia fertur undequaque. Longius fertur objectum visibile, pro rata proportione, quam sonus.

Visibilia, nimis prope admota ad oculum, non tam bene cernuntur, quam per distantiam nonnullam, ut radii coire possint in angulo magis acuto: at in auditu, quo propius, eo melius. Verum in hoc duplex potest esse error. Prior, quod ad visum requiritur lux: ea autem, objecto ad oculum propius admoto, arcetur. Nam audivi ex fide digno, qui curabatur ex cataractis oculorum, cum stylus ille minutus argenteus duceretur super ipsam pupillam oculi sui, eamque tangeret, absque ullo medio (existente stylo illo, scu acu argenteo, longe angustiore quam pupilla erat oculi) eum clarissime vidisse stylum illum. Secundus, quod sit plane interposita caverna auris ante instrumentum auditus, ut sonus exterior tangere os et membranam auditus plane nequeat.

Celerius deferuntur species visus, quam soni, ut percipitur in flamma, et sonitu sclopetorum; etiam in fulgure, et tonitru, ubi tonitru auditur post pausam.

Etiam existimo diutius hærere species soni, quam visibilia. Licet enim et illæ non subito intereant, ut manifestum est in circulo vertente, et chordis talitro percussis, et crepusculo, et similibus; tamen diutius arbitror durant soni, quia deferuntur a ventis.

Radii lucis glomerati etiam inducunt calorem, quæ est actio diversa a visibili. Similiter, si verum sit, clamores aves volantes dejecisse, etiam ea est actio protinus diversa ab audibili.

Non videtur in visibili esse objectum tam odiosum ad sensum, quam in audibili: sed magis ex æquo. Nam fœda visui magis displicent ob excitationem phantasiæ de rebus fœdis, quam propter se; at in audibilibus, sonitus serræ, dum acuitur, et similia inducunt horrorem; et tonus discordans in musica statim rejicitur et respuitur.

Non constat esse refractionem in sonis, ut in radiis. Attamen proculdubio resiliunt soni; sed illud reflexioni assignandum. Neque enim (arbitror) si sonus pertranseat diversa media, ut aërem, pannum, lignum, alium esse locum soni ubi defertur, alium ubi audiatur; id quod proprium refractionis est; sed videtur pendere ex operatione in lineis rectis refractio; id quod non competit sono.

Contractio vero soni, et dilatatio ejus, secundum dispositionem medii fit proculdubio, ut in puparum vocibus et locutione sub aqua: contrahitur sonus in caverna illa, in campis dilatatur; quemadmodum per specula dilatantur et contrahuntur visibilia.

Medium trepidans (ut fumus in visibilibus) facit visibilia objecta etiam trepidare: at in sonis nihil adhuc tale invenitur, nisi forte accessio et recessio per ventos. Nam trepidatio in fistula lusciniolæ, est trepidatio percussionis, non medii.

Post multam lucem, mutando ad tenebras, vel post tenebras ad lucem, confunditur parum visus: utrum vero hoc fiat a magnis fragoribus, aut alto silentio, inquirendum.

DE CELERITATE GENERATIONIS, ET EXTINCTIONIS SONI, ET TEMPORE IN QUO FIUNT.

OMNIS sonus cito admodum generatur, et cito interit: celeritas autem motus ipsius, et differentiarum ejus, non tam mirabilis res videtur. Etenim digitorum motus in cithara, aut anhelitus in fistula aut tibia, celeres admodum inveniuntur; etiam lingua ipsa (non curiosum prorsus organum) tot peragit motus quot literas: quod vero soni non solum tam perniciter generentur, sed et tantum spatium sua vi et impressione quasi momentanea occupent subito, id summam admirationem habet. Nam, exempli gratia, homo in medio campo vociferans exauditur ad quartam partem milliaris in ambitu, idque verbis articulatis, iisque in singulis minutis portionibus aëris hærentibus, idque in spatio temporis longe minore fortasse minuto.

De spatio temporis, in quo defertur sonus, inquirendum. Id hoc modo inveniri potest: Stet homo in campanili, noctu; stet alter in plano, ad distantiam forte milliaris, aut quam procul campana exaudiri possit, habeatque paratam facem lucentem, sed

coopertam. Sonet campana in campanili; quam cito illa exaudiatur ab illo altero qui stat in plano, attollat ille facem: per hoc, ex spatio temporis inter campanam pulsam et facem visam, deprehendi possunt momenta motus soni ab eo qui stat in campanili.

In tormentis igneis flamma conspicitur antequam bombus exaudiatur; cum tamen flamma sequatur exitum pilæ: ut flamma tardius exeat; citius sensum feriat. Unde recte colligitur, radios visibiles celerius diffundi, et pervenire, quam species aut impressiones soni.

DEAFFINITATE, AUT NULLA AFFINITATE, QUAM HABET SONUS CUM MOTU AERIS, IN QUO DEFERTUR, LOCALI ET MANIFESTO.

Sonus non videtur manifesto et actualiter quatefacere et turbare aërem, ut ventus solet; sed videntur motus soni ficri per species spirituales; ita enim loquendum, donec certius quippiam inveniatur.

Adeo ut existimem, sonum clamantis bene magnum, in parva ab ipso motu anhelitus distantia, vix folium aliquod populi albæ tremulum, aut festucam, aut flammam moturum.

Attamen in pulsationibus majoribus deprehenditur motus plane corporalis et actualis aëris: id vero utrum fiat a motu ipso, qui generat sonum, an a concausa, aut concomitantia, non constat. Tonitrua quandoque tremere faciunt fenestras vitreas, et etiam parietes: arbitror etiam bombardas displosas, aut eruptiones cuniculorum subterraneorum idem facere.

Memini etiam, ni fallor, apud collegium regium in Cantabrigia, esse ligneam quandam fabricam, in qua campanæ pendent, eamque a campanis, quando sonant, quatefieri. Sed qualiscunque fuerit ille occultus motus, qui est sonus, apparet illum nec absque manifesto motu in prima pulsatione gigni, et rursus per motum manifestum aëris deferri aut impediri.

Verbum placide prolatum, quod ad distantiam triginta pedum forte exaudiri possit, tamen admotam flammam candelæ prope os, ad unum pedem etiam, vix trepidare faciet: ubi paulo intensior flatus oris flammam faciet tremulam multo in longiore distantia.

Sonus campanarum, et similium, accedit clarior, aut recedit hebetior, prout flat ventus versus aurem aut adversus. Idem fit in clamore: qui, contra ventum editus, non tam longe auditur.

Traditur, per ingentes clamores applaudentium, et voces jubili, ita aërem collisum aut rarefactum fuisse, ut decidcrent aves volantes. Opinio vagatur, sonitus complurium campanarum simul in urbibus populosis contra et fulminum perniciem et pestilentias valere.

Traduntur pro certo loca et ædificia nonnulla ita concamerata, ut si quis loquatur, atque (ut fertur) locutio ista fiat contra parietem in una parte cameræ, melius exaudiantur verba post distantiam nonnullam a voce, quam prope.

Notavi sedens in curru, et demisso ex una parte velo currus, aperto ex altera, mendicum, qui clamabat ex latere currus clauso, ita visum esse ac si clamaret ex latere aperto; ut vox plane repulsa circuiret, aut saltem undique sonans, putaretur tamen ex ea parte audiri, qua melius pertingeret.

Si teneatur candela juxta foramen illud quod spiraculum est tympani, et percutiatur tympanum, concutitur et extinguitur flamma. Idem fit in sonando cornu venatoris, si apponatur candela ad exitum cornu, etc.

Etiam exquisitæ differentiæ, quas suscipit sonus, easque secum defert, demonstrant hujusmodi molles affectus non esse motus continuos locales. Nam sigilla in materia certe accommodata faciunt exquisitas impressiones; ita ut in generatione soni fortasse hoc fieri possit. Sed delatio et continuatio illa non competit, præsertim in liquidis: exquisitas autem illas differentias intelligimus de vocibus articulatis et tonis harmonicis.

Verum omnino de hac re (videlicet, quam relationem et correspondentiam habeat sonus ad motum localem aëris) inquiratur diligentius; non per viam, utrum (quod genus quæstionis in hujusmodi rebus omnia perdidit) sed per viam, quatenus: idque non per argumenta discursiva, sed per apposita experimenta et instantias crucis.

DE COMMUNICATIONE AERIS PERCUSSI ET ELISI CUM AERE ET CORPORIBUS VEL SPIRITIBUS IPSORUM AMBIENTIBUS.

In percussione campanæ, sonus editus per percussionem campanæ cum malleo ab extra, ut cum embolo ad intra, ejusdem est toni. Adeo et sonus redditus per percussionem ab extra non possit generari per collisionem aëris inter mallcum et extima campanæ; quandoquidem habeat rationes ad concavum campanæ ab intra. Et si foret lamina plana æris, non concavum quippiam, alius, opinor, foret sonus.

Si fucrat rima in campana, reddit sonum raucum, non jucundum aut gratum.

Videndum, quid faciat corporis, quod percutitur, crassitudo ad sonum, et quousque; veluti, si ejusdem concavi una campana sit crassior, altera tenuior. Expertus sum in campana ex auro, eam reddere sonum excellentem, nihilo pejorem, imo meliorem, quam campanam argenteam, aut æneam. Attamen nummus aureus non tam bene tinnit quam argenteus.

Dolia vacua reddunt sonum profundum et sonorum, repleta hebetem et mortuum.

At in barbito, cithara, et hujusmodi, licet prima percussio sit inter chordam, et aërem exteriorem; tamen statim ille aër communicat cum aëre in ventre, sive cavo barbiti, aut citharæ. Unde in hujusmodi instrumentis fit semper perforatio aliqua, ut aër exterior communicet cum aëre concluso, absque quo sonus foret hebes et emortuus.

Fiat experimentum fistulæ illius lusciniolæ, ut implcatur oleo, non aqua; et notetur quanto sonus sit mollior, aut obtusior.

Cum redditur sonus inter anhelitum et aërem percussum, in fistula, aut tibia, ita tamen redditur, ut habeat communicationem nonnullam cum corpore tibiæ aut fistulæ. Alius enim fit sonus in tuba lignea, alius in ænea; alius, arbitror, si tuba per interius, aut fortasse etiam per exterius, fuerit obducta serico, aut panno; alius fortasse si tuba fuerit madida, alius si sicca. Etiam existimo in espinettis, aut barbito, si tabula illa lignea, super

quam extenduntur chordæ, foret ænea, aut argentea, diversum nonnihil possit edere sonum. Verum de his omnibus inquiratur ulterius. Etiam quatenus ad communicationem, inquirendum est, quid possit corporum diversitas et inæqualitas : veluti si penderent tres campanæ, una intra alteram cum spatio aëris interposito, et percuteretur campana exterior malleo, qualem editura foret sonum respectu campanæ simplicis.

Obducatur campana ab extra panno aut serico, et notetur, quando pulsatur campana per embolum interius, quid faciat obductio illa ad sonum.

Si foret in barbito lamina ænea, aut argentea, foraminata loco ligneæ, videndum quid hoc faciat ad sonum.

Usurpantur in Dania, atque etiam deferuntur ad nos, tympana ænea, non lignea, minora ligneis, atque edunt sonum (arbitror) magis sonorum.

Agitatio aëris in ventis vehementioribus non multum (arbitror) redditura sit sonum, si absunt sylvæ, fluctus, ædes, aut similia ; attamen receptum est, ante tempestates fieri murmura nonnulla in sylvis, licet flatus ad sensum non percipiatur, nec moveantur folia.

Desunt tria capitula, quæ perficere non vacabat.

ARTICULI QUÆSTIONUM CIRCA MINERALIA.

PRIMA LITERA ALPHABETI EST COMPOSITIO, INCORPORATIO, AUT UNIO METALLORUM ET MINERALIUM.

Quibuscum metallis aurum per simplicem colliquefactionem incorporabit, et quibuscum non : qua item quantitate incorporabit, et quod genus corporis talis compositio constituet.

Aurum cum argento, quod fuit vetus illud electrum : aurum cum hydrargyro, sive argento vivo : aurum cum plumbo : aurum cum cyprio, sive cupro : aurum cum ære : aurum cum ferro ; aurum cum stanno.

Argentum itidem.

Argentum cum argento vivo : argentum cum plumbo : argentum cum cupro : argentum cum ære : argentum cum ferro : argentum cum stanno.

Tum Argentum vivum.

Argentum vivum cum plumbo : argentum vivum cum cupro : argentum vivum cum ære : argentum vivum cum ferro : argentum vivum cum stanno.

Plumbum etiam.

Plumbum cum cupro : plumbum cum ære : plumbum cum ferro : plumbum cum stanno.

Cuprum pariter.

Cuprum cum ære : cuprum cum ferro : cuprum cum stanno.

Æs etiam.

Æs cum ferro : æs cum stanno.

Ultimo Ferrum.

Ferrum cum stanno.

Quænam sint metalla composita vulgo usitata atque cognita, et quibus proportionibus ea misceantur. Nempe,

Orichalcum ex ære et Cadmia sive lapide calaminari.

Plumbum cinereum ex plumbo vulgari et stanno.

Æs campanum ex, etc.

Metallum illud factitium, quod specie tenus argentum æmulatur, vulgo alchemicum dictum.

Trium, vel plurium, metallorum decomposita nimis prolixum esset recensere ; excepto, siqua sint composita istiusmodi pridem observata.

Observandum porro, numqua duo metalla, quæ secum sola misceri non sustinent, alius, et cujusnam, ope misceri poterint.

Quæ metalla confici possint ex metallo et lapide, aut aliis fossilibus ; perinde ac orichalcum ex ære et lapide calaminari fit : quæ nempe metalla cum vitriolo ; quæ cum ferro in pulverem trito ; quæ cum silice, etc.

In nonnullis saltem horum periculum fiat, ut de cæterorum ingenio melius constet.

Numnam metalla, et alia fossilia, cum vitro liquefacto incorporabunt. Et quod genus corporis inde consurget.

In incorporationibus quantitates sedulo pendendæ. Forte enim in exigua quantitate incorporatio fiet, quæ in majore non item ; ut videre est in illis sequioribus metallis (vulgo *alloys* dictis) quibus in auro, et argento, in monetam cudendis, utuntur.

In corpore composito tria præcipue dispicienda sunt : color ; fragilitas aut ductilitas ; volatilitas aut fixatio ; comparando cum corporibus simplicibus.

In præsens emolumentum usumque, hæc regula est. Ratio habeatur pretii duorum corporum simplicium ; tum pendatur dignitas unius supra aliud, respectu usus : dein adverte, num poteris compositum efficere, quod plus pretii vilitate refundat, quam ab usus dignitate detriverit. Verbi gratia. Pendatur pretium bombardarum æneārum : pendatur etiam pretium bombardarum ferrearum : tum porro advertas, quantum æneæ bombardæ ferreis usu præstent ; tum si ex ære et ferro compositas conflare poteris, quæ usus commoditate a puris æneis non multum aberunt, multo autem minore pretio constabunt ; id scilicet rei, et privatæ et publicæ, in lucrum cedet.

Sic in auro, et argento, pretium in duodenis duplum est. Dignitas auri supra argentum haud magna est. Similis utriusque splendor ; sed et argenti etiam splendor quorundam oculis magis arridet : ut in pannis vittisque bracteatis ; ensium capulis argento obductis, et similibus. Præcipua dignitas in eo est, quod aurum ignem sustineat, quem nequit argentum : id autem ex naturæ præstantia oritur, non in usu ejus omnino positum est. Neque

enim novi, quid in usu præstet, præterquam quod argento obducta squalori ac rubigini magis obnoxia sint, quam deaurata: quod vitium, si pauxillum auri admiscendo corrigi possit, id lucro erit. Itaque nonnihil mirari subit, per aliquot jam ætates antiquorum electrum intercidisse (quod fuit ex auro et argento, mixtis, conflatum) cujus, opinor, in cudendis nummis, in vasis pretiosis extundendis, et in deaurando, plurimus usus esse poterit.

Notandum, in conversione metallorum impossibilitatem, vel saltem difficultatem non levem, subesse: veluti in efficiendo auro, argento, cupro. E contra, in adulterandis confingendisque metallis, fraudem esse libero homine indignam. Videtur autem inter hæc mediam viam esse; scilicet, per nova composita, si quidem modi incorporandi plene innoteseerent.

Quam incorporationem, seu potius imbibitionem, metalla recipient ex vegetabilibus, citra dissolutionem: ut eum armamentarii chalybi lentorum ductilitatemque, aquam, aut succum herbarum inspergendo, conciliant eumque aurum, quod præter modum induruit, renitensque est factum, injectis coriorum maceratorum aut oleo subactorum ramentis, pristinam ductilitatem recuperat; inquirendum est.

Notandum, quod in his, et similibus apparentibus imbibitionibus, optimum esset ut ratio haberetur ponderis aucti, aut non aucti: si enim nihil ponderis accesserit, suspicari possumus, nullam prorsus substantiæ imbibitionem factam esse: sed tantum alterius corporis applicationem disponere ac invitare metallum ad aliam partium posituram, quam alias ex se capturum foret.

Post incorporationem metallorum per simplicem colliquefactionem, ut magis discernatur indoles, ac consensus, dissensusque metallorum per dissolutorum incorporationem: observandum est, quæ metalla aquis stygiis dissoluta facile in unum coalescant, et quæ non: qua de re articulatim inquirendum, ut prius in colliquefactionibus.

Observandum in dissolutionibus non coalescentibus, quisnam effectus sequatur: num scilicet ebullitio; ad fundum præcipitatio; ad summum ejaculatio; in meditullio suspensio; et similia.

Nota dissensum menstruorum, sive aquarum stygiarum, posse incorporationi impedimento esse, æque ac dissensum metallorum ipsorum. Ubi ergo menstrua eadem sunt, et tamen incorporatio non fit, illic in metallis ipsis dissensus est: id vero maxime constabit, ubi menstrua diversa sunt.

SECUNDA LITERA ALPHABETI EST SEPARATIO METALLORUM, ET MINERALIUM.

Separatio triplicis generis est. Primam, separatio metalli pari a recremento et nativa scoria, quam repurgationem dicimus. Secundum, cum unum metallum seu minerale ex alio elicimus, quod extractionem vocare liceat. Tertium, cum metallum aliquod resolvimus in sua principia, materiam primam, sive elementa, (vel quocunque alio nomine indigitare placeat,) quam operationem principiationem vocabimus.

Quod ad repurgationem attinet, de illa per singula metalla quæremus, nempe aurum, argentum, et reliqua.

Obiter etiam quæremus de primo lapide, rudimento minerali, metallo immaturo, sive marcasita, singulorum metallorum; quod genus corpora sint, et quibus sensim gradibus ditescant.

Quærendum etiam de modo separandi; num igne, vel aquis stygiis; vel aliter. Præterea, quod ad modum repurgandi, dispiciendum est, quo pacto calorem intendere vel fusionem accelerare possis; quo minore pretio stet repurgatio.

Modi hoc faciendi in tribus sunt: nempe, in flatu, quo ignis accenditur; in modulo fornacis, quo calor unitione et reflexione intendatur; et in quibusdam additiliis, sive medicamentis, quorum ope corpora citius aperiantur.

Nota modum faciendi, ut flatus quam minimum intermittatur, et intendendi caloris in fornace, in omnibus metallis eundem esse posse: addititia autem, ut citior fusio concilietur, diversa sint oportet, pro diversa metallorum natura.

Notetur porro, quod si putes quantitatem additamentorum adaugendo ad proportionem scoriæ nativæ admistæ rem confici, falli poteris: quantitas enim passivi plus oberit, quam eadem quantitas activi proderit.

Quod ad extractionem, quærendum quæ metalla alia contineant, et quæ non: ut plumbum continet argentum; cuprum item argentum. Et similiter in aliis.

Nota; quamlibet impensæ in extrahendo pretium extracti superent, pergendum tamen esse: inde enim natura, et possibilitas rei saltem detegetur. Cæterum, de impensa siminuendis poterit subinde iniri ratio.

Quærendum insuper, in qua differentia sint ista metalla, quæ alia plus minusve continent; et quomodo id conveniat cum vilitate aut dignitate metalli, vel mineralis, ei permisti, in se. Verbi causa, plumbum illud, quod plus argenti continet, eo fragilius, atque alias in se vilius habetur.

Quod ad principiationem attinet, affirmare non possum, utrum tale quidpiam in rerum natura sit, necne; chemicosque in eo nimium desudare existimo. Sed utcunque sit, (num solutio, aut extractio, aut vero conversio, fiat per ignem,) sedulo quærendum est, qui sales, sulphur, vitriolum, mercurius, aut corpora istius modi simplicia, in singulis metallis reperiantur; et qua quantitate.

TERTIA LITERA ALPHABETI EST VARIATIO METALLORUM IN DIVERSAS FORMAS, CORPORA, AC NATURAS, QUARUM PARTICULARIA SIGILLATIM HIC SEQUUNTUR.

Tinctura: rubigo: calcinatio: sublimatio: præcipitatio: amalgamatizatio, vel versio in massam mollem: vitrificatio: fusio, vel versio in liquorem: germinatio, vel ramificatio, vel arborescentia: induratio et mollificatio: ductilificatio vel fragilificatio: volatilitas et fixatio: transmutatio vel conversio.

De tinctura inquirendum; quo modo metalla penitus penitusque tingantur; quibus modis id fiat, et in quos colores: quomodo nempe argentum flavedine, cuprum albedine, tingatur: quomodo etiam rubor, viriditas, cæsius color, splendore retento, induatur.

Item de tinctura vitri.

Item de tinctura marmoris, silicis, vel alterius la-

pidis. In vertendo in rubiginem duo præcipue quærenda; quibus id corrosivis fiat; et in quos colores mutatio sit. Ut plumbum in album, quod cerussam dicunt: ferrum in flavum, quod crocus martis dicitur; argentum vivum in cinnabarim: æs in æruginem, quam viride æris vocant.

De calcinatione quærendum; quomodo singula metalla calcinentur; et in quale corpus, et quæ sit calcinandi via exquisitissima.

Quantum ad sublimationem, quærendum; quomodo fiat sublimatio, et quæ metalla sublimationem sustineant; et quodnam corpus sublimatum efficiet.

Similiter quod ad præcipitationem, quærendum; quibus aquis stygiis singula metalla præcipitantur; aut quibuscum additamentis; et quo tempore; et in quod corpus.

Sic etiam de amalgamatizatione; quæ metalla illam patiantur; quomodo fiet; et in quale corpus.

De vitrificatione quoque; quæ metalla eam sustineant; quibus item fiat mediis; in quem colorem mutatio fiat: quando item totum penitus metallum in vitrum mutatur; et quando in parte tantum vitrea metallum suspenditur: quod etiam sit pondus corporis vitrificati comparati cum corpore crudo: eumque vitrificatio mors quædam metallorum habeatur, quærendum, a qua vitrificatione fiat regressus, et a qua non.

De solutione in liquorem, quærendum; quod sit cujusque metalli dissolvendi proprium menstruum; et negative, quod menstruum in quod metallum dentem imprimet, et in quod non; et quæ varia menstrua quodlibet metallum dissolvent, et quæ perfectissime; item processus, seu motio dissolutionis: modus surgendi, bulliendi, vaporandi; violentior aut pacatior; majore an minore cum calore: item quantum, seu proportio, metalli, in quam vim suam exercere possit aqua fortis, sic ut in plusculum non valeat. Item color, in quem liquor mutabitur. Supra omnia quærendum, numquod menstruum sit, quod metalla dissolvere possit citra mordacitatem atque corrosionem; et quod corpus per sympathiam aperiat, sine rodente violentaque penetratione.

Quod ad germinationem, sive ramificationem, tametsi obiter tantum fiat, et in nugis fere habeatur, et animi tantum causa factis, non tamen usu magis serio destituitur; propterea quod subtilissimos et delicatos motus spirituum detegat, quando gestiunt, nec tamen erumpere datur: quemadmodum in vegetabilibus videre licet.

Quod ad indurationem, et mollitionem, quærendum; quidnam sit, quod metalla sensim et gradatim duriora efficiet; quod itidem molliora. Hæc inquisitio in geminum finem collineat. Primo, in usum; ut cum ferrum igne molliatur, facit ut malleo cedat. Secundo, quoniam induratio fixationis quidam gradus est; emollitio autem, volatilitatis. De his ergo instituta quæstio illis lucem dabit.

Quod ad ductile et fragile, ejusdem fere generis sunt. Digna tamen de quibus sigillatim quæratur: præcipue, ut fragilitati jungatur ductilitas; veluti, quo vitrum malleo duci sustineat, et ut enses ad obsistendum et penetrandum rigidi sint, nec tamen fractu faciles.

Quod ad volatilitatem fixationemque attinet, hæc præcipua membra sunt, de quibus quæratur. Extremus fixationis gradus est, in quem nec ullus ignis, nec aqua stygia simul cum igne, quidquam operari poterit; si tamen talis omnino fixatio possibilis sit. Proximus est, quando ignis simplex, absque aqua aliqua stygia, nihil movebit. Proximus, quando vis artis exploratoriæ ferri poterit. Proximus, quando ignem folle non excitatum ferre possit, talemve ignis gradum. Proximus est, quando ignem ferre non possit, sed tamen malleo ducitur. Ultimus est, quando nec ducitur, nec tamen fluit, sed stupet. Sic et volatilitatis summus gradus est, quando absque reditu avolabit. Proximus, quando sursum volabit, et non difficulter redibit. Proximus, quando sursum volabit supra caput, per genus quoddam exsufflationis, citra vaporationem. Proximus, quando liquescet, tametsi non ascendat. Proximus, quando mollescet, tametsi non liquescat. De his omnibus diligenter quærendum, in variis metallis, in gradibus præsertim maxime remotis.

Quod ad transmutationem, sive versionem; si realis et vera sit, summus est artis apex. Caute tamen ab extractione, restitutione, et adulteratione, distinguenda est. Relatum aliquoties mihi est, ferrum in cuprum verti, plumboque pondus adauctum esse, quod fieri nequiret sine corporis alicujus in plumbum versione. Quodcunque id genus fuerit, idque rite exploratum, diligenter inquirendum, et literis consignandum foret.

QUARTA LITERA ALPHABETI EST RESTITUTIO.

Primo igitur quærendum negative, quæ corpora nunquam redibunt, aut propter extremas fixationes, ut in quibusdam vitrificationibus; aut propter extremam volatilitatem.

Quærendum etiam de duobus modis reductionis. Primo, ignis adminiculo, quod fit partes tantum homogeneas congregando. Secundo, devocando eas adminiculo corporis alicujus, quod cum iis consentit. Sic enim ferrum cuprum in aqua devocat; aurum argentum vivum ad se trahit per vaporem. Quicquid hujus generis fuerit, sedulo inquirendum.

Quærendum etiam, quæ tempus sive vetustas reducet; sine adminiculo ignis, aut alterius cujusvis corporis.

Quærendum etiam quid unioni, sive restitutioni, obstiterit, quod mortificatio quandoque dicitur: ut cum argentum vivum resina, terebinthina, saliva, aut butyro, interimitur.

Ultimo inquirendum, qua in re metallum restitutum a metallo crudo differat; ut num renitentius sit factum, aut novum colorem acquisiverit, aut similia.

INQUISITIO DE MAGNETE.

Magnes trahit pulverem chalybis præparati, quali utuntur ad medicinam; etiam chalybem calcinatum in tenuissimum pulverem nigrum, æque fortiter ac limaturam ferri crudam: crocum autem martis, qui est rubigo ferri artificiosa, hebetius et debilius. Si vero ferrum dissolvatur in aqua forti, et guttæ aliquæ dissolutionis ponantur super vitrum planum, non extrahit magnes ferrum, nec trahit aquam ipsam ferratam.

Magnes scobem suam trahit, quemadmodum limaturam ferri: parvaque admodum magnetis frustula, alterum alterum trahit, ut pensilia fiant et capillata, quemadmodum acus.

Pone magnetem in tali distantia a ferro, ut non trahat: interpone pileum ferri, servata distantia, et trahet; virtute magnetis per ferrum melius diffusa, quam per medium aëris solius.

Magnes immissus intra aquam fortem, ibique per plures horas manens, virtute non minuitur.

Magnes fricatione contra pannum (ut utimur in electro) aut contra alium magnetem, aut calefactus ad ignem, virtute non angetur.

Magnes alius alio est longe virtuosior: quinetiam virtutem suam, pro modo ejus, ferro tactum transmittit: virtutem, inquam, non solum verticitatis, sed etiam attractionis simplicis. Nam si accipias magnetem fortiorem, eoque ferrum (puta cultellum) tangas; deinde magnete debiliore similiter alium cultellum, videbis cultellum fortiore magnete tactum majus trahere pondus ferri quam qui debiliore tactus est.

Magnes ad æque distans ferrum trahit per aërem, aquam, vinum, oleum.

Magnete, aut pulvere ejus, in aqua forti immerso, nihil omnino dissolvitur, sicut in ferro fit; licet magnes videatur esse corpus ferro consubstantiale.

Pulvis magnetis ferrum intactum non trahit, nec tactum etiam: attamen ipse pulvis a ferro tacto trahitur, et adhæret; ab intacto autem minime: adeo ut pulvis magnetis videatur passivam virtutem aliquo modo retinere, activam antem non omnino.

Acus super planum posita, quæ magnete non trahitur propter pondus; eadem superimposita fundo vitri elevato, ut utrinque propendeat, trahetur; quod eo magis relatu dignum puto, quia hujusmodi quiddam fortasse occasionem dedit frivolæ illi narrationi, quod adamas magnetis virtutem impediat. Pone enim acum super adamantem parvum, in tabulam sectum, magnete præsente ad distans majus, quam in quo trahere posset, tamen trepidabit: illa autem trepidatio, non prohibitio motus est, sed motus ipse.

Magnes ferrum tactum longe vivacius trahit, quam intactum; adeo ut ferrum, quod intactum in data distantia non trahit, id in triplici distantia tactum trahat.

Nihil extrahitur ferri aut metallicæ materiæ ex magnete per ignem, et nota separationis.

Magnes non solvitur in aqua regis plus quam in aqua forti.

Magnes, in crucibulo positus, citra tamen quam ut flammam emittat, minuitur multum pondere, et immensum virtute, ut vix ferrum attrahat.

Magnes ægre liquefit, sed tamen figuram nonnihil immutat, et rubescit ut ferrum.

Magnes, combustus integer, virtutem passivam, ut se applicet alteri magneti, retinet; activam ad ferrum trahendum fere perdit.

Magnes in crucibulo combustus emittit fumum, vix tamen visibilem, qui laminam æris superimpositam nonnihil albicare facit: ut solent etiam metalla.

Magnes in comburendo penetrat per crucibulum, idque tam extra, quam intra, fracto, quod a splendore splendescere facit.

Consentiunt omnes, magnetem, si comburatur, ita ut flammam quandam loridam et sulphuream jaciat, prorsus fieri virtute evanidum; eamque nunquam post ea recuperare; licet refrigeretur in positura australi et septentrionali: id quod lateribus virtutem indit, et in magnetibus non prorsus combustis vires renovat.

Experimentum factum est, de ferro magnete tacto, ac etiam de magnete ipso, collocatis super fastigium templi S. Pauli Londini, quod est ex altissimis templis Europæ; annon minuerentur virtute attractiva, propter distantiam a terra? sed nihil prorsus variatum est. [*Ex Reliquiis Baconianis.*]

Si fiat versorium ex metallo aliquo, more indicis magnetici, et fini alteri apponatur succinum, leniter fricatum, versorium convertit se.

Succinum calefactum ab igne, sive tepeat, sive ferveat, sive inflammetur, non trahit.

Bacillum ferreum candens, flamma, candela ardens, carbo ignitus, admota festucis aut versoriis, non trahunt.

Succinum in majore mole, si fuerit politum, allicit, licet non fricatum; si in minore, aut impurius, sine frictione non trahit.

Crystallus, lapis specularis, vitrum, electrica cætera, si urantur, aut torreantur, non trahunt.

Pix: resina mollior: benjoin: asphaltum: camphora: galbanum: ammoniacum: storax: assa: hæc cœlo calidiore neutiquam prorsus trahunt; at tempore frigidiore obscure et infirme trahunt.

Vapidus aër succino, etc. afflatus, vel ab ore, vel ab aëre humidiore, virtutem trahendi suffocat.

Si charta aut linteum interponatur inter succinum et paleam, non fit motus aut attractio.

Succinum aut electrica, calefacta ex radiis solis, non expergefiunt ad trahendum, sicut ex frictione.

Succinum fricatum, et radiis solis expositum, diutius vires trahendi retinet, nec tam cito eas deponit, ac si in umbra positum esset.

Fervor ex speculo comburente, succino, etc. conciliatus, non juvat ad trahendum.

Sulphur accensum, et cera dura inflammata, non trahunt.

Succinum, cum citissime a frictione festucæ vel versorio apponitur, optime trahit.

Virtus electrica viget in retentione ad tempus, non minus quam in attractione prima.

Flamma, apposito succino intra orbem activitatis, non trahitur.

Gutta aquæ, admoto succino, trahitur in conum. Electrica, si durius affricentur, impeditur attractio.

Quæ ægre alliciunt in claro cœlo, in crasso non movent.

Aqua imposita succino virtutem trahendi suffocat, licet ipsam aquam trahat.

Sarca, ita succino circundatum, ut tangat, attractione tollit; sed interpositum ut non tangat, non omnino tollit.

Oleum, succino appositum, motum non impedit; nec succinum, digito oleo madefacto fricatum, virea trahendi perdit.

Firmius provocant, et diutius retinent succinum, gagates, et hujusmodi, etiam minore cum frictione: adamas, crystallum, vitrum, diutius teri debent, ut manifesto incalescant antequam trahant.

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Quæ flammæ approximant, licet propinqua distantia, a succino non trahuntur.

Fumum, extincta lucerna, succinum, etc. trahit. Fumus, ubi exit et crassus est, fortius trahit succinum; cum ascenderit, et rarior fit, debilius. Corpus ab electricis attractum non manifesto alteratur, sed tantum incumbit.

INQUISITIO

DE

VERSIONIBUS, TRANSMUTATIONIBUS, MULTIPLICATIONIBUS, ET EFFECTIONIBUS

CORPORUM.

Terra per ignem versa est in lateres, quæ sunt ex natura saxorum; quibusque ad ædificationem utimur, sicut et saxis. Idem est in tegulis.

Naphtha, quæ fuit bituminosum illud cæmentum, ex quo extruebantur muri Babylonis, tempore adipiscitur valde magnam duritiem et firmitatem, ad instar saxi.

In terris argillaceis, ubi calculi et glarea habentur, invenies saxa ingentia ex calculis et glarea coagulata; et inter ipsos materiam saxeam, æque duram, aut certe duriorem quam calculi ipsi.

Sunt quædam scaturigines aquarum, in quas si immergas lignum, vertetur in naturam lapidis: adeo ut pars submersa intra aquam deveniat lapis; pars supra aquam remaneat lignum.

Materia viscosa circa renes et vesicam in corpore humano vertitur in calculum, sive materiam lapideam. Lapis etiam sæpe invenitur in cista fellis: aliquando etiam, sed rarissime, in vena porta.

Quære, quantum temporis requiritur, ut materia terræ in lapidicinis vertatur in naturam lapideam?

Aqua, ut conjicere licet, vertitur in crystallum: quod videre est in cavernis quamplurimis, ubi crystallus in stillicidiis pendet.

Experimentum capias de ligno, sive caulibus herbarum, in argento vivo sepultis, utrum indurescant, et quasi lapidescant, annon.

Fama increbuit de lapide in capite bufonis vetuli et magni generato.

Relatum est, nobilem quendam, in palude sua fodientem, invenisse ovum in lapidem versum, albumine et vitello proprium colorem retinentibus; testa autem clare micante, instar adamantis exquisite in angulos secti.

Experimentum sumas, de corporibus aliquibus, prope fundum putei demissis; veluti ligno, aut aliis quibusdam substantiis tenerioribus, sed aquam non tangant, ne putrefiant.

Aiunt albumen ovi, per diuturnam insolationem, vel expositionem in radios solis, contraxisse duritiam lapidis.

Lutum, in aqua, vertitur in testas piscium: ut in musculis, piscibus; qui reperiuntur in paludibus dulcibus, non fluentibus, et musco coopertis. Substantia autem testarum earum est valde tenuis, lucida, et micans.

TOPICA INQUISITIONIS

DE

LUCE ET LUMINE.

TABULA PRÆSENTIÆ.

1. Videndum primo, quæ sint ea, cujuscunque generis, quæ progignunt lucem: ut stellæ, meteora ignita, flamma, ligna, metalla, et alia ignita; saccharum inter scalpendum et frangendum, cicindela, rores aquæ salsæ percussæ et sparsæ, oculi quorundam animalium, ligna nonnulla putria, magna vis nivis; aër fortasse ipse tenuem possit habere lucem, animalium visui, quæ noctu cernunt, conformem; ferrum et stannum, cum in aquam fortem immittuntur resolvenda, ebulliunt, et sine ullo igne acrem calorem concipiunt; utrum vero lucem aliquam edunt, inquiratur. Oleum lampadum magnis frigoribus scintillat: nocte suda, circa equum sudantem conspicitur nonnunquam lux quædam tenuis; circa ca-

pillos quorundam hominum accidit, sed raro, lux etiam tenuis, tanquam flammula lambens; ut factum est in Lucio Martio, in Hispania. Ventrale cujusdam fœminæ nuper inventum est, quod micaret, minime immotum, sed inter fricandum. Erat autem intinctum in viridi, atque tinctnram illam ingreditur alumen, et crepabat nonnihil, cum micabat. Utrum alumen inter scalpendum, aut frangendum, micet, inquiratur: sed fortiore (ut puto) indiget fractione, quam saccharum, quia magis contumax est. Tibialia nonnulla inter exuendum nituerunt, sive ex sudore, sive ex tinctura aluminis. Alia.

TABULA ABSENTIÆ IN PROXIMO.

2. Videndum etiam, quæ sint ea, quæ nullam lucem edant: quæ tamen cum iis, quæ edant, magnam habent similitudinem. Aqua bulliens non edit lucem. Aër, licet violenter fervefactus, non edit lucem. Specula, et adamantes, quæ lucem tam insigniter reflectunt, nullam edunt lucem originalem. Alia.

Videndum est etiam accurate, in hoc genere instantiarum, de instantiis migrantibus, ubi scilicet adest et abest lux, quasi transiens. Carbo ignitus lucet, sed fortiter compressus statim lucem deponit. Humor ille crystallinus cicindelæ morte vernis, etiam fractus et in partes divisus, lucem ad parvum tempus retinet, sed quæ paulo post evanescat. Alia.

TABULA GRADUUM.

3. Videndum, quæ lux sit magis intensa, et vibrans, quæ minus. Flamma lignorum fortem edit lucem; flamma spiritus vini, debiliorem; flamma carbonum penitus accensorum, fusciam admodum et vix visibilem. Alia.

COLORES LUCIS.

4. Videndum est de coloribus lucis, quales sint, quales non. Stellarum aliæ candidæ sunt, aliæ splendidæ, aliæ rubeæ, aliæ plumbeæ. Flammæ ordinariæ, et inter eas, coruscationes cœlitus, et flammæ pulveris pyrii maxime albicant. Flamma sulphuris cœrulea est, et pulchra. In aliquibus autem corporibus sunt purpureæ flammæ. Non inveniuntur flammæ virides. Quæ maxime ad viriditatem inclinat, est lux cicindelæ. Nec inveniuntur coccineæ flammæ. Ferrum ignitum rubicundum est; et paulo intentius ignitum quasi candescit. Alia.

REFLEXIONES LUCIS.

5. Videndum, quæ corpora lucem reflectunt; ut specula, aquæ, metalla polita, luna, gemmæ. Omnia liquida, et superficie valde æquata et lævi, splendent nonnihil. Splendor autem est gradus quidam pusillus lucis.

Videndum attente, utrum lux corporis lucidi ab alio corpore lucido reflecti possit: ut si sumatur ferrum ignitum, et opponatur radiis solis. Nam reflexiones lucis omnino super-reflectuntur (elanguentia tamen paulatim) de speculo in speculum. Alia.

MULTIPLICATIONES LUCIS.

6. Videndum de multiplicatione lucis, ut per specula perspectiva, et similia, quibus acui potest lux, et in longinquum projici; aut etiam reddi ad distinguendas res visibiles subtilius et melius; ut videre est apud pictores, qui phialam aqua plenam ad candelam adhibent.

Videndum etiam, num omnia in majore quanto lucem non reflectant: lux enim (ut credi possit) aut pertransit, aut reflectitur. Qua de causa luna, etiamsi fuerit corpus opacum, tamen ob magnitudinem lucem reflectere possit.

Videndum etiam, utrum aggregatio corporum lucidorum, lucem multiplicet. Atque de æqualiter lucidis dubitandum non est. Utrum vero lux, quæ majore luce penitus obnitur, ut videri per se non possit, adjiciat tamen aliquid lucis, inquiratur. Etiam splendida quæque nonnihil lucis contribuunt. Magis enim lucidum erit cubiculum serico, quam lana, ornatum. Multiplicatur etiam lux per refractionem: nam gemmæ angulis intercisæ, et vitrum fractum, magis splendent, quam si plana fuerint. Alia.

MODI OBRUENDI LUCEM.

7. Videndum de modis obruendi lucem; veluti per exsuperantiam majoris lucis, mediorum crassitudines, aut opacitates. Radii solis certe, in flammam foci immissi, flammam veluti fumum quendam albiorem apparere faciunt. Alia.

OPERATIONES SIVE EFFECTUS LUCIS.

8. Videndum de operationibus, sive effectibus lucis, qui pauci sunt; et ad corpora, præsertim solida, alteranda parum possunt. Lux enim præ omnibus se generat, alias qualitates parce.

Lux certe aërem nonnihil attenuat; spiritibus animalium grata est, eosque exhilarat; colorum omnium et visibilium radios submortuos excitat. Omnis enim color lucis imago fracta est. Alia.

MORA LUCIS.

9. Videndum est de mora lucis; quæ, ut videtur, momentanea est. Neque enim lux, si per multas horas in cubiculo duraverit, magis illud illuminat, quam si per momentum aliquod: cum in calore, et aliis, contra fiat. Etenim, et prior calor manet, et novus superadditur. Attamen crepuscula nonnihil a reliquiis lucis provenire, ab aliquibus putantur.

VIÆ ET PROCESSUS LUCIS.

10. Videndum attente de viis et processibus lucis. Lux circumfunditur; utrum vero una ascendat paululum, an æqualiter deorsum, et sursum, circumfundatur, inquiratur. Lux ipsa lucem undique circa se parit; ut cum corpus lucis, umbraculo scilicet interposito non cernatur; lux ipsa tamen omnia circum illuminat, præter ea quæ sub umbram umbraculi cadunt: quæ tamen ipsa nonnihil lucis accipiunt a luce circumjecta; nam multo melius aliquid intra umbram situm cerni potest, quam si nulla omnino adesset lux. Itaque corpus visibile corporis alicujus lucidi, et ipsa lux, res discrepantes esse videntur. Lux corpora fibrosa, et inæqualis posituræ, non penetrat; sed tamen a soliditate duritiæ corporis non impeditur, ut fit in vitro, et similibus. Itaque recta linea, et pori non transversi, videntur lucem tantum perferre.

Delatio lucis fit optime per aërem; qui quo purior fuerit, eo melius lucem transmittit. Utrum lux per corpus aëris vehatur, inquiratur. Sonos certe videmus a ventis vehi; et longius secuado vento, quam adverso, audiri possint: utrum vero simile aliquid fiat in luce, inquiratur. Alia.

DIAPHANEITAS LUCIDORUM.

11. Videndum etiam est de diaphaneitate lucidorum. Filum candelæ intra flammam cernitur: at per majores flammas objecta ad visum non perveniunt. At contra omnis diaphaneitas ex corpore aliquo ignito perit; ut in vitro videre est, quod ignitum non amplius manet diaphanum. Corpus aëris diaphanum est; item aquæ: at illa duo diaphana commista, in nive, aut spuma, non amplius diaphana sunt, sed acquirunt lucem quandam originalem.

COGNATIONES ET HOSTILITATES LUCIS.

12. Videndum de cognationibus, atque etiam hostilitatibus lucis. Cognationem maxime habet lux cum tribus rebus, quatenus ad generationem lucis; calore, tenuitate, et motu. Videndum igitur de conjugiis et divortiis eorum erga lucem; atque eorundem conjugiorum et divortiorum gradibus. Flamma spiritus vini aut ignis fatui longe ferro ignito calore lenior est, verum lumine fortior. Cicindelæ, et rores aquæ salsæ, et multa ex illis, quæ enumeravimus, lucem jaciunt, calida ad tactum non sunt. Etiam metalla ignita tenuia non sunt, at calore tamen ardente prædita. At contra, aër est inter tenuissima corpora, sed luce vacat. Rursus, idem aër, atque etiam venti, motu rapidi sunt, lucem tamen non præbent. At contra, metalla ignita motum suum hebetem non exuunt, lucem nihilominus vibrant.

In cognationibus autem lucis, quæ non ad generationem ejus, sed ad processum tantum spectant, nihil tam conjunctum est, quam sonus; itaque de eorum sympathiis et dissidiis accurate videndum. In his conveniunt. Lux et sonus in ambitum circumfunduntur. Lux et sonus per longissima spatia feruntur; sed lux pernicius, ut in tormentis videmus, ubi lux citius cernitur, quam auditur sonus, cum tamen flamma pone sequatur. Lux et sonus subtilissimas distinctiones patiuntur; ut in verbis articulatis soni; in omnibus visibilium imaginibus lux. Lux et sonus nihil fere producunt aut generant, præterquam in sensibus et spiritibus animalium. Lux et sonus facile generantur, et brevi evanescunt: Num non est quod quis putet sonum illum, qui ad tempus aliquod a campana aut chorda percussa durat, a prima percussione fieri: nam si campana vel chorda tangatur et sistatur, sonus statim perit; unde manifestum est, per successionem creari. Lux a majore luce, sicut sonus a majore sono, obruitur; et cætera.

Differunt autem, quod lux (ut diximus) sono velocior sit. Lux majore spatia vincit, quam sonus. Lux utrum in corpore aëris deferatur, quemadmodum sonus, incertum sit. Lux, in linea recta tantum, sonus in linea obliqua, et undiquaque feratur: etenim cum quid in umbra umbraculi cernitur, non est, quod quis putet, quod lux ipsa penetret umbraculum, sed aërem tantum circumfusum illuminat; qui etiam aërem pone umbraculum vicinitate nonnihil illustrat: at sonus, ab uno latere parietis redditus, ex altera parte parietis auditur, non multum debilitatus. Etiam sonus intra septa corporum solidorum audiatur, licet exilior factus; ut fit in sonis infra lapides hæmatites; aut in corporibus percussis infra aquam; at lux in corpore diaphano, undique obstructo, omnino non cernitur. Ultimo, quod omnis sonus generetur in motu, et elisione corporum manifesta; lux non item.

At hostilitates lucis, nisi quis privationes pro hostilitatibus habere velit, non occurrunt; verum, quod maxime credibile est, torpor corporum in partibus suis, maxime est luci inimicus. Nam fere nihil lucet, quod non, aut propria natura insigniter mobile est; aut exeitatum, vel calore, vel motu, vel spiritu vitali. Alia.

Intelligo autem semper, quod non tantum aliæ instantiæ investigandæ sint (istas enim paucas exempli loco solummodo adduximus) sed etiam ut novi topici articuli, prout rerum natura fert, adjiciantur.

FRANCISCI BARONIS DE VERULAMIO

SCRIPTA

IN NATURALI ET UNIVERSALI PHILOSOPHIA.

TEMPORIS PARTUS MASCULUS,

SIVE INSTAURATIO MAGNA IMPERII HUMANI IN UNIVERSUM.

Ad Deum Patrem, Deum Verbum, Deum Spiritum, preces fundimus humillimas et ardentissimas, ut humani generis ærumnarum memores, et peregrinationis istius vitæ nostræ, in qua dies paucos et malos terimus; nova adhuc refrigeria e fontibus bonitatis suæ ad miseriss nostras leniendas aperiant; atque illud insuper, ne humana divinis officiant, neve ex recta ratione viarum sensus, et accensione majore luminis naturalis, aliquid incredulitatis et noctis animis nostris erga divina mysteria oboriatur: sed potius ut ab intellectu, a phantasiis et vanitate puro et repurgato, et divinis oraculis nihilominus subdito et prorsus deditio fidei dentur quæ fidei sunt.

FRANCISCUS BACON LECTORI.

Si qui fuerint, qui in veterum placitis sibi acquiescendum non putarunt, quod aliquando ab animi constantia, sæpius ab ingenii levitate fieri vidimus; ii, qualescunque fuerint, hac fere defensione communi usi sunt; se, licet ab antiquitate desciverint, tamen ea afferre, quæ cum sensu optime conveniant; atque homines, si hoc sibi in animum indueere possint, ut auctoritate non perstringantur, sed sibi ipsi et, sensibus credant, facile in eorum partes transituros. Nos vero sensum nec contradictione violavimus, nec abstractione destruimus, et materiam ei longe uberiorem, quam alii, præbuimus, et multo ministerio errores ejus restituimus, potestates auximus, atque judicium ejus, damnatis phantasiis, atque in ordinem redacta ratione, munivimus et firmavimus; ut alii professione quadam, nos reipsa sensum tueri videamur; atque philosophia nostra una fere atque eadem res sit cum sensu restituto et liberato. Neque propterea tamen nobis de hominum fide et assensu large pollicemur, cum nostra ratio cum nulla priorum consentiat, sed plane in diversum trahat. Nam qui hucusque, pertæsi eorum, quæ veteres afferunt, ad experientiam et sensum tanquam de integro se contulerunt, in hunc modum fere se gesserunt; ut nonnulla primo secundum sensum acriter et strenue inquisiverint; ea potissimum sumentes, quæ illis maxime rationem totius habere visa sunt. Atque ex his confestim experientiæ manipulis, et tanquam factionibus placita confinxerint, anguste, et inæqualiter philosophati, et omnia paucis condonantes. Atque iste tamen modus philosophandi, ad fidem faciendam sæpenumero validus et felix est; ob angustias pectoris humani, quod illis, quæ una et subito mentem subire possunt, maxime movetur, et acquiescendi cupidum cætera vel negligit, vel modo quodam non perceptibili ita se habere putat, ut illa pauca quibus phantasia impleri aut inflari consuevit. At contra, nos non manipulares, sed justum divinorum operum exercitum post nos trahentes, et ex æquo et secundum summas rerum pronunciantes, non habemus fere quo nos vertamus, aut ex qua parte aditum ad humanam fidem reperiamus; cum ea, quæ adducimus, altius quam notiones, latius quam hujusmodi experimenta, se extendant. Itaque necesse est, ut ex illis pleraque præproperis et propensis sensuum prehensionibus non satisfaciant, nonnulla autem dura, et instar religionis incredibilia ad sensus accedant. Sensus enim humani fallunt utique, sed tamen etiam se indicant; verum errores præsto, indicia accersita sunt. Itaque et novam

prorsus tradendi viam ingressi sumus, rei ipsi convenientem: non disputando, aut exempla rara et sparsa adducendo; cum uterque fidei faciendæ modus fortasse adversus nobis futurus fuisset, quorum decreta nec in cura notionum, nec in angustiis experientiæ abscissæ, et truncatæ; fundata sint: sed experientiam concervatam et continuam adhibuimus, atque homines ad fontes rerum adduximus, ac universum intellectus processum et derivationes sub oculos posuimus. Quare quicunque eo animo sunt, ut aut argumentis nitantur, aut paucis exemplis eedant, aut auctoritatibus impediantur, aut opus hoc nostrum evolvere et introspicere propter aut animi aut temporis angustias non possint; cum illis nos profecto de hac re nec serio colloqui possumus. Satis fuerit, si illud Philocratis de Demosthene dictum hnc transferamus. "Atque nolite mirari, Athenienses, si mihi cum Demosthene non conveniat. Ille enim aquam, ego vinum bibo." Illi enim certe liquorem bibunt erudum, ex intellectu vel sponte manantem, vel industria quadam haustum: nos autem liqnorem paramus et propinamus ex infinitis uvis confectum, iisque maturis et tempestivis, et per racemos deeerptis et collectis, et subinde toreulari pressis, et rursus in vase se separantibus, et clarificatis. Ne enim hoc Deus siverit, ut phantasiæ nostræ somnium pro exemplari mundi edamus; sed potius benigne faveat, ut apocalypsin et visionem vestigiorum et viarum Creatoris in natura et creaturis conscribamus.

FILUM LABYRINTHI,

SIVE

INQUISITIO LEGITIMA DE MOTU.

Machina intellectus inferior: seu sequela chartarum ad apparentiam primam.

Racemi, sive charta historiæ nrdinatæ ad articulum primum: de formis et differentiis motus.

Motus applieationis exterioris, sive motus adhærentiæ.

Motus applicationis interioris, sive motus misturæ.

Motus applicationis ad fibras, sive motus identitatis.

Motus assimilationis, seu motus generationis Jovis.

Motus signaturæ, sive motus generationis Saturni.

Motus excitationis, sive motus generationis fietæ.

Racemi, sive charta historiæ ordinatæ ad articulum secundum.

De subjectis sive contiuentibus motum.

Racemi, sive charta historiæ ordinatæ ad articulum tertium.

De vehiculis sive deferentibus motum.

Racemi, sive charta historiæ ordinatæ ad articulum quartum.

De operationibus et consequentiis motus.

Racemi, sive charta historiæ ordinatæ ad articulum quintum.

De curriculis sive clepsydris motus.

Racemi, sive charta historiæ ordinatæ ad artieulum sextum.

De orbe virtutis motus.

Racemi, sive charta historiæ ordinatæ ad articulum septimum.

De hierarchia motus.

Racemi, sive eharta historiæ ordinatæ ad artieulum octavum.

De societatibus motus.

Racemi, sive eharta historiæ ordinatæ ad articulum nonum.

De affinitatibus motus.

Racemi, sive charta historiæ ordinatæ ad articulum decimum.

De viribus unionis in motu.

Racemi, sive charta historiæ ordinatæ ad artieulum undecimum.

De viribus consuetudinis et novitatis in motu.

Racemi, sive eharta historiæ ordinatæ ad articulum dnodecimum.

De aliis omnibus motus.

Syllabæ sive eharta anatomiæ.

Vena relicta, sen eharta divisionis secundæ.

Axioma exterius, sive charta observationis.

Columnæ, sive charta impossibilis apparentis, sive humana optativa.

Fœnus, sive charta usus intervenientis, sive humana activa.

Anticipatio, sive charta interpretationis sylvestris.

Pons, sive charta ad chartas novellas.

Machina intellectus snperior; sive sequela chartarum ad apparentiam secundam.

Chartæ novellæ.

Atque exemplum inquisitionis de natura (ut videre est) absolvimus, idque in subjecto omnium maxime capaci et diffuso; eaque forma, quam judicamus cum veritate et intellectu snmmum eousensum habere. Neque tamen, more apud homines receepto, formulæ alicui necessitatem imponimus: tanquam unica esset, et instar artis ipsius: sed certe omnibus perteutatis, ex longo usu, et nonnullo, ut putamus, judicio, hanc ipsam formam sive rationem disponendi materiam rerum, ad opus intellectus, ut probatam et electam exhibemus. Nihil autem offieit, quo minus ii, qui otio magis abundant, aut a difficultatibus, quas primo experientem sequi necesse est, liberi jam erunt, aut majoris etiam et nltioris sunt ingenii, rem in potius

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perducant. Nam et ipsi statuimus, artem inveniendi adolescere cum inventis: neque ad aliquid immotum et inviolabile inveniendi artificium, hominum industriam et felicitatem astringendam: artis enim perfectionem artis usum remorari, nihil est necesse. Quod autem viam novam scientiam docendi et tradendi ingressi sumus, quod doctrinam et præcepta quasi prætereuntes, et aliud agentes distulimus; atque in exemplo præcipue elaboravimus: hoc summa ratione nos fecisse arbitramur. Neque sane homines latere volumus, quid in hac re secuti sumus: nam obtinere in hominum æquitate positum est, vel potius in fortuna communi. Res enim humani generis agitur, non nostra. Primum hoc videmur adepti, quod maximum est, ut plane intelligamur. Longe enim aliud est singulis præceptis exempla subnectere: aliud, universi operis figuram perfectam et quasi solidam construere et repræsentare. Etenim in mathematicis, adstante machina aut fabrica, sequitur demonstratio facilis et perspicua: sed absque hac commoditate, omnia videntur involuta, et, quam revera sunt, subtiliora. Atque etiam illud usu venit, ut quo grandius instrumentum demonstrationis fiat, eo sit et fidelius et illustrius. Etiam putamus nos aliquem modestiæ et simplicitatis fructum percipere posse, quod nec vim nec insidias hominum judiciis fecimus aut paravimus: sed rem undam et apertam exhibuimus. Nemo enim ante nos, homines ad fontes naturæ et res ipsas adduxerunt, ut in medium consulerent: sed exempla et experientiam ad dictorum suorum fidem, non ad alieni judicii libertatem, adhibuerunt: ut dupliciter nos de humano genere meritos existimemus, duas res, maxime mortalibus charas et gratas, potestatem et libertatem, simul deferentes: potestatem operum, libertatem judicii. Ac veluti in judiciis civilibus ea maxime incorrupta et recta sunt, ubi minimum oratorum licentiæ et turbis, aut etiam eloquentiæ conceditur; sed omnis fere opera et tempus testibus consumitur: eodem modo et de natura judicia exercentur optima, cum nec pugnaci nec probabili orationi aut disputationi maximæ partes tribuuntur, sed experientiæ testimoniis evidentibus et coacervatis res conficitur. Nam certe in auctorum testimoniis libido et stimulus versatur: rerum autem testimonia et responsa, interdum obscura et perplexa, sed semper sincera et incorrupta sunt. Liberati etiam videmur magno malo, ex hominum fastidio et præjudicio. Solent enim viri prudentes, et graves, et cunctatores, novitatem omnem levitatis et vanitatis nomine suspectam habere; novas autem sectas et nova placita ut larvas et umbras aspernari: neque enim multum interesse putant, utrum homines in theoriis consentiant aut dissentiant; nisi quod vetera et recepta magis sint, ob consensum et mores, rebus gerendis accommodata. Huic malo non aliud remedium reperiebatur, nisi ut amplitudine exempli, in ipsos hominum sensus ita incurramus, ut, primo aspectu, quivis mediocris judicii rem solidam et sobriam esse, atque opera et utilitatem spirantem; et a novæ scholæ aut novæ sectæ ratione et consuetudine prorsus alienam, statim perspiciat et agnoscat. Speramus etiam hoc potissimum modo, antiquis et aliis, qui in philosophia aliquid opinati sunt, auctoritatem et fidem abrogari: honorem et reverentiam conservari posse, idque non artificio quodam, sed ex vi ipsa rei. Existimamus enim subituram animos hominum cogitationem, num et illi hujusmodi diligentiam adhibuerint, aut placita et opiniones suas a tali fundamento excitaverint. Atque sane hoc dubium alicui videri potuisset, si opiniones eorum tantum ad nos perveuissent, modus autem inquisitionis et demonstrationis non apparuisset. Tum enim tale quippiam in mentem nobis venisset cogitare, illos proculdubio a meditationum suarum principio magnam vim et copiam exemplorum paravisse, eamque simili quo nos ordine, vel fortasse meliore disposuisse. Sed postquam re comperta, illis pronuntiare visum esset; tum demum pronuntiata et eorum explicationes et connexiones in scripta redegisse; addito sparsim uno aut altero exemplo ad docendi lumen: sed primordia illa et notas, ac veluti codicillos et commentarios suos in lucem edere, et supervacuum et molestum putasse: Itaque fecisse ut in ædificando facere decet: nam post operis ipsius structuram, machinas et scalas, et hujusmodi instrumenta a conspectu amovenda esse. Verum hæc de ipsis cogitare, nobis per ipsos integrum non est: formam enim et rationem suam inquirendi, et ipsi profitentur, et scripta eorum ejusdem expressam imaginem præ se ferunt. Ea non alia fuit, quam ut ab exemplis quibusdam, quibus sensus plurimum assueverat, ad conclusiones maxime generales, sive principia scientiarum, advolarent: ad quorum immotam veritatem conclusiones inferiores per media derivarent. Ex quibus arte constituta, tum demum, si qua controversia de aliquo exemplo mota esset, quod placitis suis refragari videretur, illud per distinctiones aut regularum suarum explanationes in ordinem redigerent: aut si de rerum particularium causis mentio injiceretur, eas ad speculationes suas ingeniose accommodarent. Itaque res et totius erroris processus prorsus patet: nam et missio experientiæ præpropera fuit: et conclusiones mediæ (quæ operum vitæ sunt) aut neglectæ, aut infirmo fundamento impositæ sunt; et sensui ipsi (qui non repræsentatur) ingenii quædam facta est substitutio illegitima et infelix, et si qua frequens alicubi inter eorum scripta inveniatur exemplorum et particularium mentio, id sero, et postquam jam decretum esset de placitis suis, factum esse constat. Nostra autem ratio huic maxime contraria est: quod tabulæ affatim extra controversiam ponunt. Quibus positis et illud sequitur, admirationem, quæ quibusdam ex antiquis aut alii cuipiam tribuitur, intactam et imminutam manere. Nam in iis, quæ in ingenio et meditatione posita sunt, illi mirabiles homines se præstiterunt. Nostra autem talia sunt, quæ hominum ingenia et facultates fere æquant. Nam quemadmodum ad hoc, ut linea recte describatur, plurimum est in manu et visus facultate, si per constantiam manus et oculorum judicium tantum res tentatur; sin per regulam admotam, non multum: aut, ut etiam simplicius verba faciamus, quemadmodum ad hoc, ut longa oratio recitetur memoriter, homo memoria pollens ab homine oblivioso mirum in modum differt; sin de scripto, non item: eadem ratione, et in contemplatione rerum, quæ mentis viribus solum incumbit, homo homini præstat vel

maxime: in ea autem, quæ per tabulas fit, et earum usum rite adhibitum, non multo major in hominum intellectu eminet inæqualitas, quam in sensu inesse solet. Quin et ab ingeniorum acumine et agilitate, dum suo motu feruntur, periculum metuimus. Itaque hominum ingeniis non plumas aut alas, sed plumbum et pondera addimus. Accedit et illud, quod rem omnium difficillimam (si vis et contentio adhibeatur) per tabulas nostras sponte secuturam non diffidimus; hanc ipsam, ut postquam homines primo aditu fortasse difficiles et alieni, paulo post nativæ rerum subtilitati, quæ oculis suis subjicitur, et differentiis in experientia plane signatis et expressis, assueverint; continuo fere subtilitatem verborum et disputationum, quæ hucusque hominum cogitationes occupavit et tenuit, quasi pro re ludicra et quadam incantatione et spectro habituri sint; atque de natura decreturi, quod de fortuna dici solet, eam a fronte capillatam, ob occipitio calvam esse: omnem enim istam seram et præposteram subtilitatem, postquam tempus rerum præterierit, naturam præsare et captare, sed nunquam apprehendere et capere posse. Etiam vivum nos et plane animatum docendi genus adhibuisse arbitramur: non enim scientiam a stirpibus avulsam, sed cum radicibus integris, tradimus, ut in ingeniis melioribus, veluti in gleba ferociore, transplantata, magnum et felix incrementum recipere possit. Nos autem si qua in re vel male credidimus, vel obdormivimus et minus attendimus, vel defecimus, et inquisitionem abrupimus; nihilominus rem ita proposuimus, ut et errores nostri, antequam massam scientiæ altius infician, notari et separari possint; atque etiam ut facilis et expedita sit laborum nostrorum successio et continuatio: tum autem homines vires suas noscent, cum non eadem infiniti, sed omissa alii præstabunt. Etiam illud ludibrium avertisse videmur, cui frequens nostra operum mentio et inculcatio exponi posset, nisi homines inter res ipsas versari cogitassemus, hoc est, ut homines opera, quæ ab aliis exigimus, et a nobis poscerent: facile enim quivis jam perspicict, non frustra nos de operibus sermonem intulisse, cum in tabulis ipsis pauca nec novorum operum designationes et formora reperiet, atque simul rationem nostram plane perspiciet: non opera ex operibus (scilicet ut empirici solent) sed ex operibus causas, ex causis rursus opera nova, ut legitimi naturæ interpretes, educendi: atque propterea evitandi præmaturam et effusam a principio ad opera deflexionem, atque hujus rei legitimum et præstitutum tempus observandi et expectandi. Postremo et illud videmur effecisse, ut homines non solum de vi et instituto hujus instaurationis nostræ, sed etiam de mole et quantitate ejus, veras opiniones habeant, ne forte alicui in mentem venire possit, hoc, quod molimur, vastum quiddam esse, et supra humanas vires; cum contra plerumque fiat, ut quod magis utile magis finitum sit: hæc vero de natura inquisitio, vel singulis non sit pervia, conjunctis vero operis etiam expedita. Quod ut præstet magis, digestum tabularum addere visum est. Primæ tabulæ sunt de motu; secundæ, de calore et frigore; tertiæ, de radiis rerum et impressionibus ad distans; quartæ, de vegetatione et vitia; quintæ, de passionibus corporis animalis; sextæ, de sensu et objectis; septimæ, de affectibus animi; octavæ, de mente et ejus facultatibus. Atque hæ tabulæ ad naturæ separationem pertinent, et sunt ex parte formæ. Ad constructionem autem naturæ pertinent, et ex parte materiæ sunt tabulæ, quæ sequuntur; nonæ, de architectura mundi; decimæ, de relativis magnis, sive accidentibus essentiæ; undecimæ, de corporum consistentiis, sive inæqualitate partium; duodecimæ, de speciebus sive rerum fabricis et societatibus ordinariis; decimæ tertiæ, de relativis parvis, sive proprietatibus; ut universa inquisitio per tredecim tabulas absolvatur. Minores autem tabulas (quas specilla appellamus) ex occasione et usu præsenti confiemus. Neque enim in illis ipsis ullam, nisi per tabulas, et de scripto, inquisitionem recipimus. Restat pars altera mole minor, vi potior; ut postquam constructionem machinæ docuimus, etiam de usu machinæ lucem et consilia præbeamus.

COGITATIONES DE NATURA RERUM.

COGITATIO I. DE SECTIONE CORPORUM, CONTINUO, ET VACUO.

Doctrina Democriti de atomis aut vera est, aut ad demonstrationem utiliter adhibetur. Non facile enim est naturæ subtilitatem genuinam, et qualis in rebus ipsis invenitur, aut cogitatione complecti, aut verbis exprimere, nisi supponatur atomus. Accipitur autem duobus sensibus atomus, non multum inter se diversis. Aut enim accipitur pro corporum sectionis sive fractionis termino ultimo, sive portione minima; aut pro corpore quod vacuo caret. Quod ad primam attinet, hæc duo posita tuto et certo statui possunt: alterum, inveniri in rebus dispertitionem et comminutionem, longe ea, quæ sub aspectum cadit, subtiliorem: alterum, eam tamen infinitam non esse, nec perpetuo divisibilem. Si quis enim diligenter attendat, reperiet rerum minutias in corporibus continuatis eas, quæ in corporibus fractis et discontinuatis inveniuntur, subtilitate longe vincere. Videmus enim parum croci in aqua infusum et agitatum, puta dolium aquæ, ita inficere, ut ab alia aqua pura etiam visu distingui possit. Quæ certe dispertitio croci per aquam subtilitatem exquisitissimi pulveris superat. Quod manifestum fiet, si tantundem pulveris ligni Brasilii, vel balaustiorum,

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vel alieujus rei optime coloratæ (quæ tamen croci lentorem, ad se in liquoribus aperiendum et incorporandum, non habeat) immisceas. Itaque ridiculum erat, atomos pro parvis illis corpusculis, quæ sub radiis solis conspiciuntur, aceipere. Ea enim pulveris instar sunt, atomum autem, ut ipse Democritus aiebat, nemo unquam vidit, aut videre possit. Sed ista rerum dispertitio in odoribus multo magis mirabilem se ostendit. Etenim si parum croci dolium aquæ, colore ; at parum zibethi cœnaculum amplum, odore imbuere, et inficere potest, et subinde aliud, et rursus aliud. Neque quisquam sibi fingat, odores, luminis more, aut etiam caloris et frigoris, absque communicatione substantiæ diffundi ; cum notare possit, odores etiam rebus solidis, lignis, metallis, adhærescere, idque ad tempus non exiguum ; posse etiam frictione, lavatione ab iisdem discuti et purgari. Verum in hisce et similibus, quod processus infinitus non sit, nemo sanus contradixerit, cum intra spatia et limites, et corporum quantitates, hujusmodi dispertitio sive diffusio cohibeatur ; ut in exemplis antedictis evidentissimum est. Quod ad secundum sensum atomi attinct, quod vacuum præsupponit, atomumque ex privatione vacui definit ; bona et seria diligentia Heronis fuit, quæ vacuum coacervatum negavit, vacuum commistum asseruit. Cum enim perpetuum corporum nexum cerneret, neque inveniri prorsus aut assignari spatium aliquod, quod corpore vacet ; et multo magis, cum corpora gravia et ponderosa sursum ferri, et naturas suas quoque modo deponere et violare potius, quam divulsionem absolutam a corpore contiguo patiantur, viderct ; naturam a vacuo majoris notæ sive coacervato abhorrere prorsus statuit. Contra, cum eandem corporis materiam contrahi, et coarctari, et rursus aperiri et dilatari perspiceret, et spatia inæqualia interdum majora, interdum minora occupare et complere ; non vidit quomodo hujusmodi ingressus et egressus corporum in locis suis fieri possit, nisi propter vacuum admistum, minus videlic et, corpore compresso, plus relaxato : necesse enim esse, contractionem istam per unum ex his tribus modis fieri ; aut eo, quem diximus, nempe quod vacuum pro ratione contractionis excludatur ; aut quod aliud aliquod corpus prius intermistum exprimatur ; aut quod sit quædam naturalis (qualis qualis ea sit) corporum condensatio et rarefactio. Atque quod ad corporis tenuioris expressionem attinet, ista ratio nullum exitum habere videtur. Nam verum est, spongias, et hujusmodi porosa, expresso aëre, contrahi. De aëre ipso autem manifestum est per plurima experimenta, cum spatio notabili contrahi posse. Num ergo et ipsius aëris subtiliorem partem exprimi putandum est ? et deinceps hujusmodi partis aliam, et sic in infinitum? Nam adversissimum tali opinioni est, quod quo tenuiora corpora sint, eo majorem contractionem sustineant, eum contra fieri oporteret, si contractio per expressionem partis tenuioris fieret. Atque de illo altero modo, corpora scilicet eadem, nec alias mutata, tamen magis et minus in raritate aut densitate recipere, non multum laborandum est. Positivum enim quiddam videtur esse, et ratione surda, et inexplicata niti, qualia sunt fere Aristotelis pronuntiata. Restat itaque tertius ille modus, qui vacuum supponit. Quod si illud quis objeciat, durum videri et fere incredibile, ut vacuum admistum sit, cum corpus ubique reperiatur ; is si exempla, quæ modo adduximus, aquæ croco, vel aëris odoribus infecti, animo sedatiore consideret, facile perspiciet, nullam partem posse assignari aquæ, ubi crocus non sit, et tamen manifestum esse ex comparatione croci et aquæ antequam miscerentur, corpus aquæ corpus croci multis numeris exeederc. Quod si id in diversis corporibus invenitur, multo magis in corpore et vacuo hoc fieri putandum est. Verum in ea parte Heronis, utpote hominis mechanici, contemplatio illa Democriti philosophi clarissimi inferior fuit : quod Hero, quia hic apud nos in nostro isto orbe vacuum coacervatum non reperit, ideo illud simpliciter negavit. Nil enim impedit, quominus in regionibus ætheris, ubi proculdubio majores sunt corporum expansiones, etiam vacuum coacervatum sit. In iis autem inquisitionibus et similibus semel monitum sit, ne quis propter tantam naturæ subtilitatem confundatur et diffidat. Cogitet enim et unitates et summas rerum ex æquo supputationi submitti. Tam facile enim quis mille annos dixerit, aut cogitaret, quam mille momenta ; eum tamen anni a multis momentis constituantur. Neque rursus existimet aliquis, hæc potius speculationis curiosæ esse, quam ad opera et usum referri : videre enim est omnes fere philosophos et alios, qui in experientia et rebus particularibus sedulo versati sunt, et naturam ad vivum dissecuerunt, in hujusmodi inquisitiones incidere, licet eas feliciter non peragant. Neque alia subest causa potentior et verior, ob quam philosophia, quam habemus, effectuum sit sterilis, nisi quod verborum et notionum vulgarium subtilitates captavit ; naturæ subtilitatem non persecuta est, nec inquirere constituit.

II. DE ÆQUALITATE AC INÆQUALITATE ATOMORUM SIVE SEMINUM.

Pythagoræ inventa et placita talia ex majore parte fuere, quæ ad ordinem potius quendam religiosorum fundandum, quam ad scholam in philosophia aperiendam, accommodata essent ; quod et eventus comprobavit. Ea enim disciplina plus in hæresi Manichæorum, et superstitione Mahumeti, quam apud philosophos, valuit et floruit. Opinio tamen ejus, mundum ex numeris constare, eo sensu accipi potest, ut ad naturæ principia penetret. Duplex enim est, atque adeo esse potest, opinio de atomis sive rerum seminibus ; una Democriti, quæ atomis inæqualitatem et figuram, et per figuram situm attribuit ; altera fortasse Pythagoræ, quæ eas omnino pares et similes esse asseruit. Qui enim æqualitatem atomis assignat, is omnia in numeris necessario ponit ; qui autem reliqua attributa admittit, is naturas primitivas atomorum singularium præter numeros sive rationes eoitionum adhibet. Activa autem quæstio, quæ huic speculativæ respondet, eamque determinare potest, ea est, quam etiam Democritus addueit ; utrum omnia ex omnibus fieri possint. Quod eum illa a ratione alienum putasset, atomorum diversitatem tenuit. Nobis vero ea quæstio non bene instituta, nec quæstionem priorem premere videtur, si de transmutatione immediata corpora intelligatur.

Verum utrum etiam per debitos circuitus et mutationes medias universa non transeant, ea demum quæstio legitima est. Dubium enim non est, semina rerum, licet sint paria, postquam se in certas turmas et nodos conjecerint, corporum dissimilium naturam omnino induere, donec eædem turmæ aut nodi dissolvantur; adeo ut compositorum natura et affectus transmutationi immediatæ non minori impedimento ac obici, quam simplicium, esse possit. Verum Democritus in corporum principiis investigandis acutus; in motuum autem principiis examinandis sibi impar et imperitus deprehenditur; quod etiam commune vitium omnium philosophorum fuit. Atque hujus, de qua loquimur, inquisitionis de prima conditione seminum sive atomorum, utilitas, nescimus, an non sit omnino maxima; ut quæ sit actus et potentiæ suprema regula, et spei et operum vera moderatrix. Etiam alia inquisitio inde fluit, cujus utilitas complexu minor, sed rebus et operibus propior est. Ea est de separatione et alteratione, hoc est, quid per separationem fiat, et quid alia ratione. Familiaris enim est animo humano error, qui etiam a chemistarum philosophia magnum robur et incrementum accepit; ut ea separationi deputentur, quæ alio spectent. Exempli gratia; cum aqua in vaporem transit, facile quis opinetur partem aquæ subtiliorem emitti, erassiorem subsistere; ut in ligno videre est, ubi pars in flamma et fumo evolat, pars in cinere manet. Simile quiddam et in aqua fieri quis putet, licet non tam manifesto. Quamvis enim tota aqua quandoque ebullire et consumi videatur, tamen fæces quasdam ejus, tanquam cinerem, vasi adhærescere posse. Verum et ista ratio cogitationem fallit. Certissimum enim est, totum corpus aquæ in nërem posse mutari, et si quid vasi adhærescat, id non ex delectu et separatione partis erassioris, sed forte ut aliqua pars (licet puri omnino eum ea, quæ evolat, substantia) situ vas tetigeret, evenire; idque exemplo argenti vivi elucescit, quod totum fit volatile, et rursus totum absque diminutione vel tantilla consistit. Etiam in oleo lampadum, et sevo candelarum, totum a pingui fit volatile, nec aliqua fit incineratio; nam fuligo post flammam non ante flammam gignitur; et flammæ cadaver, non olei aut sevi sedimentum est. Atque hoc aditum quendam ad Democriti opinionem de diversitate seminum sive atomorum labefactandam præbet. Aditum, inquam, in natura; nam in opinione aditus ille est multo mollior et blandior, quod philosophia vulgaris materiam suam commentitiam ad omnes formas æquam et eommunem fingit.

III. DE NEGLIGENTIA VETERUM IN INQUISITIONE DE MOTU, ET MOVENTIBUS RERUM PRINCIPIIS.

Inquisitionem de natura in motu contemplando et examinando maxime collocare, ejus est, qui opera spectet. Quieta autem rerum principia contemplari aut comminisci, eorum est, qui sermones serere, et disputationes alere velint. Quieta autem voco principia, quæ docent ex quibus res conflentur et consistant, non autem qua vi et via eoalescant. Neque enim ad agendum, et potestatem sive operationem humanam amplificandam sufficit, aut magnopere attinet, nosse ex quibus res constent, si modos et vias mutationum et transformationum ignores. Nam sumpto exemplo a mechanicis (a quarum phantasia celebres illæ de principiis rerum inquisitiones fluxisse videntur) an forte qui simplicia theriacam ingredientia novit, is pro certo theriacam componere potest? Aut qui sacchari, vitri, panni, materialia recte descripta apud se habet, num propterea artem, quæ ad eorum præparationem et effectionem pertinet, tenere videtur? Atque in hujusmodi tamen principiis mortuis investigandis et examinandis hominum speculationes præcipue occupatæ sunt; ac si quis cadaveris naturæ anatomiam inspicere, non naturæ vivæ facultates et virtutes inquirere, sibi proponat et destinet. De moventibus autem rerum principiis sermo fere in transitu habetur: ut omnem admirationem superet, si intueamur quam negligenter et dissolute res omnium maxima et utilissima inquiratur et tractetur. Etenim si cogitationem de iis, quæ dicuntur, paulisper suscipiamus: num stimulus materiæ per privationem? num efformatio materiæ ad ideam? num aggregatio particularum similium? num agitatio fortuita atomorum in vacuo? num lis et amicitia? num cœli et terræ impressiones reciprocæ; num elementorum commereium per qualitates symbolizantes? num influxus cœlestium? num sympathiæ et antipathiæ rerum? num occultæ et specificæ virtutes et proprietates? num fatum, fortuna, necessitas? num, inquam, hujusmodi generalia, quæ nil aliud sunt quam spectra, et simulacra in superficie rerum, veluti in aquis, natantia et ludentia, humanum genus beabunt? aut opes humanas efficient auctiores? Ista enim phantasiam implent, vel inflant potius, sed nil prorsus ad operum effectionem, corporum mutationem, aut motuum regimen faciunt. Atque rursus, de motu naturali et violento, de motu ex seipso et aliunde, de terminis motuum argutari et subtilitates captare; et hæc quoque nil admodum de corpore naturæ stringunt; sed potius in cortice describuntur. Itaque his missis, vel ad populares sermones damnatis et relegatis, illi demum rerum appetitus et inclinationes investigandæ sunt, a quibus ista, quam videmus, tanta effectuum et mutationum varietas, in operibus et naturæ et artis conflatur, et emergit. Atque tentandum, ut naturæ, veluti Proteo, vincula injiciamus. Sunt enim genera motuum recte inventa et discreta, vera Protei vincula. Nam prout motuum, id est, incitationum et cohibitionum stimuli et nodi adhibentur, ad illud sequitur materiæ ipsius conversio et transformatio.

IV. DE DIVISIONE VULGARI MOTUS, QUOD SIT INUTILIS, ET MINUS ACUTA.

Divisio motus recepta in philosophia popularis videtur et absque fundamento, ut quæ rem per effectus tantum dividit; atque ad hoc, ut per causas sciamus, nihil conducit. Num generatio, corruptio, augmentatio, diminutio, alteratio, latio ad locum, nil aliud quam opera et effectus motuum sunt; qui cum ad manifestam rerum mutationem perveneruut, quæ populari notæ subjacet, tum demum hisce nominibus (pingui satis contemplatione) insigniuntur. Neque enim dubitamus, quin hoc sibi velint, cum corpora per motum (enjuscunque sit generis) eo usque processerint, ut formam novam teneant, vel veterem

ponant (quod veluti periodus quædam est, et justi spatii confectio) id motum generationis et corruptionis nominari; siu autem, manente forma, quantitatem tantummodo et dimensionem novam adipiscantur, id motum augmentationis et diminutionis dici; sie, manente etiam mole et claustris, sive circumscriptione, tamen qualitate, actionibus et passionibus mutentur, id motum alterationis appellari; siu, manente utique et forma, et mole, et quantitate, locum et nil aliud mutent, id per motum lationis significari. Verum hæc omnia acutius et diligentius inspicienti, mensura motus sunt, et periodi, sive curricula quædam motuum et veluti pensa, non veræ differentiæ, cum quid factum sit designent; at rationem facti vix innuant. Itaque hujusmodi vocabula docendi gratia sunt necessaria, et dialecticis rationibus accommodata, naturalis autem scientiæ egentissima. Omnes enim isti motus compositi sunt, et decompositi, et multipliciter compositi; cum perite contemplantibus ad simpliciora penetrandum sit. Nam principia, fontes, causæ, et formæ motuum, id est omnigenæ materiæ appetitus et passiones, philosophiæ debentur: ac deinceps motuum impressiones sive impulsiones; frena et reluctationes; vias et obstructiones; alternationes et misturæ; circuitus et catenæ; denique universus motuum processus. Neque enim disputationes animosæ, aut sermones probabiles, aut contemplationes vagæ, aut denique placita speciosa, multum juvant. Sed id agendum ut, modis debitis, et ministerio naturæ convenienti, motum quemcunque in materia susceptibili excitare, cohibere, intendere, remittere, multiplicare, ac sopire et sistere possimus; atque inde corporum conservationes, mutationes, et transformationes præstare. Maxime autem ii motus sunt inquirendi, qui simplices, primitivi, et fundamentales sunt, ex quibus reliqui conflantur. Certissimum enim est, quanto simpliciores motus invenientur, tanto magis humanam potestatem amplificari, et a specialibus et præparatis materiis liberari, et in nova opera invalescere. Et certe quemadmodum verba sive vocabula omnium linguarum, immensa varietate, e paucis literis simplicibus componuntur; pari ratione universæ rerum actiones et virtutes a paucis motuum simplicium naturis et originibus constituuntur. Turpe autem fuerit hominibus, propriæ vocis tintinnabula tam accurate explorasse, ad naturæ autem vocem tam illiteratos esse, et more prisci seculi (antequam literæ inventæ essent) sonos tantum compositos, et voces dignoscere; elementa et literas non distinguere.

V. DE QUANTO MATERIÆ CERTO, ET QUOD MUTATIO FIAT ABSQUE INTERITU.

Omnia mutari, et nil vere interire, ac summam materiæ prorsus eandem manere satis constat. Atque ut omnipotentia Dei opus erat, ut aliquid erearetur e nihilo, ita et similis omnipotentia requiritur, ut aliquid redigatur in nihilum. Id sive per destitutionem virtutis conservatricis, sive per actum dissolutionis fiat, nihil ad rem: tantum necesse est, ut decretum intercedat Creatoris. Hoc posito ne cogitatio abstrahatur, aut materia aliqua fictitia intelligatur, etiam illud significemus; eam a nobis introduci materiam, atque ea natura investitam, ut vere diei possit huic corpori plus materiæ adesse, illi autem (licet eandem mensuram expleant) minus. Exempli gratia, plumbo plus, aquæ minus, aëri multo minus; neque hoc solum indefinite et ratione incerta et surda, sed præcise; adeo ut calculos hæc res pati possit, veluti plus duplo, triplo, et similiter. Itaque si quis dicat, aërem ex aqua fieri posse, aut rursus aquam ex aëre, audiam; si vero dicat similem mensuram aquæ in similem mensuram aëris verti posse, non audiam; idem enim est, ac si dixisset, aliquod posse redigi in nihilum. Similiter e converso, si dicat datam mensuram aëris (exempli gratia vesicam contenti certi aëris plenam) in similem mensuram aquæ verti posse, idem est ac si dicat, aliquid fieri posse ex nihilo. Ex his itaque positis, tria præcepta sive consilia ad usum derivare jam visum est, ut homines peritius, et propter peritiam felicius, cum natura negotientur. Primum hujusmodi est, ut homines frequenter naturam de rationibus suis reddendis interpellent; hoc est, cum corpus aliquod, quod prius sensui manifestum erat, aufugisse et disparuisse videant, ut non prius rationes admittant, aut liquident, quam demonstratum eis fuerit, quo tandem corpus illud migraverit, et ad quæ receptum sit. Hoc, ut nunc sunt res, negligentissime fit, et contemplatio plerumque cum aspectu desinit; adeo ut flammæ, rei vulgatissimæ, receptum hominem non norint, quandoquidem eam in corpus aëris mutari falsissimum sit. Secundum hujusmodi, ut cum homines considerent necessitatem naturæ prorsus adamantinam, quæ materiæ inest, ut se sustentet, nec in nihilum cedat, aut solvatur; illi rursus nullum genus vexationis et agitationis materiæ prætermittant, si ultimas ejus operationes et obstinationes detegere atque educere velint. Atque hoc consilium non admodum artificiosum certe videri possit; quis negat? Sed utile tamen quiddam videtur, neque nihil in eo est. Veruntamen, si placet, etiam nunc parum observationis huic rei adspergamus. Itaque sic habeto. Maximum certe homini, sive operanti, sive experienti, impedimentum occurrit, quod materiæ massam certam, absque diminutione aut accessione, servare, et premere, et subigere vix licet; sed, separatione facta, ultima vis eluditur. Separatio autem duplex intervenit: aut quod pars materiæ evolet, ut in decoctione; aut saltem quod secessio fit, ut in flore lactis. Intentio itaque mutationis corporum profundæ et intimæ non alia est, quam si materia omnino debitis modis vexetur; sed tamen istæ duæ separationes nihilominus interim prohibeantur. Tum enim materia vere constringitur, ubi fugæ omnis via intercipitur. Tertium denique hujusmodi, ut homines, cum corporum alterationes in eadem materiæ massa, neque aucta, neque diminuta, fieri videant, primum eo errore phantasiam liberent, qui alte hæret; alterationem nempe tantummodo per separationem fieri; deinde ut sedulo et perite distinguere incipiant de alterationibus, quando ad separationem referri debeant; quando ad disordinationem tantum, et variam positionem partium absque alia separatione; quando ad utramque. Neque enim credo, eum pyrum immaturum et acerbum manibus fortius attrectamus, contundimus, et subigimus, unde illud dulcedinem acquirit; aut eum sue-

cinum vel gemma, in pulverem subtilissimum redacta, colorem deponunt, materiæ pars notabilis deperditur, sed tantum partes corporis in nova positione constituuntur. Restat ut errorem quendam ex opinionibus hominum evellamus, cujus ea vis est, ut, si fides ei adhibeatur, aliqua ex his, quæ diximus, pro desperatis haberi possint. Vulgaris enim opinio est, rerum spiritus, cum ad intensiorem quendam gradum tenuitatis per calorem evecti sunt, etiam in vasis solidissimis (puta argenti, vitri) per occultos eorundem poros et meatus evolari; quod minus verum est. Neque enim aër aut spiritus, licet accedente calore, rarefactus, non flamma ipsa, tam libenter se comminuit, ut per hujusmodi poros exitum sibi quærere aut facere sustineat. Verum ut nec aqua per rimam valde parvam, ita nec aër per hujusmodi poros effluit. Nam ut aër aqua longe tenuior, ita et tales pori rimis conspicuis longe subtiliores sunt: neque opus haberet sub vase operto suffocari, si hujusmodi perspirationes illi ullo modo præsto essent aut competerent. Exemplum autem, quod adducunt, miserum est, vel potius miserandum, ut sunt pleræque contemplationes vulgaris philosophiæ, cum ad particularia ventum est. Aiunt enim, si charta inflammata in poculum mittatur, et subito os poculi super vas aquæ convertatur, aquam sursum trahi; propterea quod postquam flamma, et aër per flammam rarefactus, quæ spatii aliquantum impleverant, per poros vasis exhalaverint, restare ut corpus aliquod succedat. Idem in ventosis fieri, quæ carnes trahunt. Atque de successione aquæ vel earnis bene sentiunt, de causa, quæ præcedit, imperitissime. Neque enim est aliqua corporis emissio, quæ spatium præbet, sed sola corporis contractio. Corpus enim, in quod flamma recedit, longe minus spatium complet, quam flamma antequam extingueretur. Hinc fit illud inane, quod successionem desiderat. Atque in ventosis hoc evidentissimum est. Nam cum eas fortius trahere volunt, spongia aquæ frigidæ infusa illas tangunt, ut per frigus aër interior condensetur, et se in minus spatium colligat. Itaque demimus certe hominibus eam solicitudinem, ne de spirituum tam facili evolatione laborent: eum et illi spiritus, quos sæpe desiderant, odorum, saporum, similium, non semper extra septa evolent, sed intra confundantur; hoc certissimum est.

VI. DE QUIETE APPARENTE, ET CONSISTENTIA, ET FLUORE.

Quod quædam quiescere videantur, et motu privari, id secundum totum aut integrum recte videtur, secundum partes autem, hominum opinionem fallit. Quies enim simplex et absoluta, et in partibus et in toto nulla est, sed quæ esse putatur per motuum impedimenta, cohibitiones, et æquilibria efficitur. Exempli gratia, cum in vasis in fundo perforatis, quibus hortos irrigamus, aqua (si os vasis obturetur) ex foraminibus illis non effluit; id per motum retrahentem, non per naturam quiescentem fieri perspicuum est. Aqua enim tam contendit descendere, quam si actu suo potiatur; sed cum in summitate vasis non sit quod succedat, aqua in imo ab aqua in summo retrahitur, et vim patitur. Si quis enim alterum infirmiorem in lucta teneat, ut se movere non possit, atque ille nitatur sedulo, non propterea tamen minor est motus renitentiæ, quia non prævalet, et a motu fortiori ligatur. Hoc autem quod dicimus de falsa quiete, et in rebus innumeris utile cognitu est, et non minimum lucis præbet in inquisitione naturæ solidi et liquidi, sive consistentiæ et fluoris. Solida enim videntur in positione sua manere et quiescere, liquida autem moveri et confundi. Neque enim columna ex aqua, aut alia effigies extrui potest, ut de ligno vel lapide. Itaque in promptu est opinari, partes aquæ superiores contendere (motu, quem appellant, naturali) ut defluant; partes autem ligni non item. Atqui hoc verum non est, cum idem insit motus partibus ligni, quæ in summo collocantur, ut deorsum ferantur, qui aquæ; idque in actum perduceretur, nisi ligaretur et retraheretur iste motus a motu potiore. Is autem est certe appetitus continuitatis, sive separationis fuga, quæ et ipsa tam aquæ, quam ligno, competit; sed in ligno est motu gravitatis fortior, in aqua debilior. Nam quod ex hujusmodi motu etiam quæ liquida sunt participent, id manifestum est. Videmus enim in bullis aquæ ad separationem evitandam, aquam se in pellicullas conjiceere, in hemisphærii formam conflctas. Videmus etiam in stillicidiis, aquam, ut aquæ continuetur, in filum exile se producere et attenuare, quoad sequens aqua suppetat; sin autem deficiat aqua ad continuationem, tum se in guttas rotundas recipere, quarum diameter filo illo priore sit multo major. Simili modo videmus, aquam comminutionem magis exquisitam ægre pati, cum ex foraminibus et rimis (si subtiliores sint) naturali suo pondere absque concussione non effluat. Quare constat, appetitum continuitatis etiam liquidis inesse, sed debilem. At contra in rebus solidis viget, et motui naturali sive gravitati prædominatur. Si quis enim existimet in columna ligni vel lapidis superiores partes non diffluere cupere, sed se in eodem plane statu sustinere, is facile se corriget, si consideret columnam, sive similia, si altitudo ejus ad latitudinem basis non sit proportionata, sed modum excedat, stare non posse, sed devexo pondere ferri; adeo ut structuris prædictis necesse sit, ut ad pyramidis formam inclinent, et sint versus summitatem angustiores. Qualis autem sit ea natura, quæ appetitum istum continuitatis intendat aut remittat, non facile inquirenti occurret. Illud fortasse suggeretur, partes solidorum esse magis densas et compactas; liquidorum magis raras et solutas; aut liquidis subesse spiritum, quod fluoris sit principium, qui in solidis desit, et hujusmodi. Sed neutrum horum veritati consonum est. Manifestum enim est, nivem et ceram, quæ secari et fingi, et impressiones recipere possunt, argento vivo aut plumbo liquefacto longe esse rariora; ut in ratione ponderum evincitur. Quod si quis adhuc insistat, fieri posse, ut nix aut cera, licet sit (in toto) argento vivo rarior, tamen habere possit partes magis clausas et compactas; verum quia sit corpus spongiosum, et cava multa et aërem recipiat, ideo in summa effici leviorem, ut in pumice fit, qui eum pro ratione molis sit fortasse ligno levior, tamen si utrumque in pulverem redigatur, pulverem pumicis pulvere ligni futurum graviorem, quia cavitates illæ non amplius adsint: Hæc bene notata et objecta sunt. Sed quid

ad nivem et ceram colliquatam dicent, ubi jam cavitates expletæ sunt; vel quid ad gummi corpora, mastichen, et similia, quæ cavitates istas manifestas non habent, et tamen sunt pluribus liquoribus leviora? Quod autem de spiritu afferunt, per cujus vim et impetum res fluant; id certe primo intuitu probabile est, et notionibus communibus familiare, reipsa autem durius est, et magis erroneum, cum veræ rationi non solum non innitatur, sed fere opponatur. Spiritus enim ille, quem dicunt, revera (quod mirum fortasse dictu) consistentiam inducit, non fluorem: quod et optime in instantia nivis cernitur; quæ cum ex aqua et aëre compositum corpus sit, eumque et aqua et aër seorsum fluant, in mistura tamen consistentiam adipiscitur. Quod si quis objicist, id evenire posse ex condensatione aquæ partis per frigus, et non ab interpositione aëris; is se corriget, si animadvertat etiam spumam corpus simile nivi esse, quod tamen a frigore nullo modo condensetur. Sin adhuc urgeat, et in spuma præeedere condensationem, non a frigore, sed tamen ab agitatione et percussione; is pueros consulat, qui ex levi aura, per fistulam sive calamum inspirata, et aqua (ob parum saponis admistum) paulo tenaciore, miram et turritam bullarum strueturam confieiunt. Res autem sic se habet; corpora ad tactum corporis amici, sive similis, se solvere et laxare, ad tactum autem corporis dissentientis se stringere et sustinere. Itaque appositionem corporis alieni esse consistentiæ causam. Sic videmus oleum aquæ admistum, ut fit in unguentis, liquidatem, quæ et in aqua et in oleo antea vigebat, quadantenus exuere. Contra videmus, papyrum aqua madefactum se solvere, et consistentiam (quæ ob aërem antea in poris admistum valida erat) depouere; oleo veru madefaetum, minus, quia oleum papyru minus consentiat. Idem quoque in saccharo videmus et similibus, quæ ad aquam vel vinum intromitteuda se laxant, neque solum eum liquores illis incumbunt, sed eosdem quoque sugunt et sursum trahunt.

VII. DE CONSENSU CORPORUM, QUÆ SENSU PRÆDITA SUNT, ET QUÆ SENSU CARENT.

Passiones corporum, quæ seusu dotantur, et quæ seusu carent, magnum conseusum habent; nisi quod in corpore sensibili accedat spiritus. Nam pupilla oculi speculo sive aquis æquiparatur; et simili natura imagines lucis et rerum visibilium excipit et reddit. Organum autem auditus obiei intra locum cavernosum conforme est, a quo vox et sonus optime resultat. Attractiones autem rerum inanimatarum, et rursus horrores sive fugæ (eas dico, quæ ex proprietate fiunt) in animalibus, olfactui atque odoribus gratis et odiosis, conveniunt. Tactus autem ratio et gustus, omuem, quæ in corporibus animatis accidere possit, aut violentiam aut contra insinuationem almam et amicam, ac universas earundem passionum figuras veluti vates aut interpres exprimit. Nam compressiones, extensiones, erosiones, separationes, et similia, in corporibus mortuis in processu latent, nec nisi post effectum manifestum percipiuntur. In animalibus autem cum sensu doloris secundum diversa genera aut charaeteres violentiæ peraguntur, permeante per omnia spiritu. Atque ab hoc principio deducitur cognitio, num forte alicui animantium adsit alius quispiam sensus præter eos, qui notantur; et quot et quales sensus in universo animantium geuere esse possint. Ex passionibus enim materiæ rite distinctis sequetur numerus seusuum, si modo organa competant, et accedat spiritus.

VIII. DE MOTU VIOLENTO, QUOD SIT FUGA, ET DISCURSATIO PARTIUM REI PROPTER PRESSURAM, LICET MINIME VISIBILIS.

Motus violentus (quem vocant) per quem missilia, ut lapides, sagittæ, globi ferrei, et similia, per aërem volant, fere omnium motuum est vulgatissimus. Atque in hujus tamen observatione et inquisitione miram et supinam negligentiam hominum notare licet. Neque parvo detrimento in motus istius natura et potestate iuvestiganda offenditur; cum ad infinita sit utilis, et tormentis, machinis, et universæ rei mechanicæ sit instar animæ et vitæ. Plurimi autem se perfuuctos inquisitione putant, si motum illum violentum esse pronuntient, et a naturali distinguant. Atque is sane est Aristotelis et scholæ ejus mos proprius et disciplina, curare ut habeant homines quod pronuntient, non quod sentiant; et docere quomodo aliquis affirmando aut negando se expedire, non cogitando se explicare, et sibi satisfacere possit. Alii paulo attentius, arrepto illo posito, duo corpora in uno loco esse non posse, restare aiunt, ut quod fortius sit impellat, debilius cedat; eam cessionem sive fugam, si minor adhibeatur vis, non ultra durare, quam prima impulsio continuetur, ut in protrusione; si autem major, etiam remoto corpore impellente, ad tempus vigere, donec sensim remittatur, ut in jactu. Atque hi rursus, alio ejusdem scholæ more inveterato, primordia rei captant, de processu et exitu non soliciti, tanquam prima quæque cætera trahant; quo fit ut immatura quadam impatientia contemplationem abrumpant. Nam ad id, quod corpora sub ipsum ictum cedant, aliquid afferunt; sed postquam corpus impellans jam remotum sit, adeo ut necessitas illa confusionis corporum jam plane cessaverit, cur postea motus continuetur, nihil dicunt, nec seipsi satis capiunt. Alii autem, magis diligentes, et in inquisitione peraeverantes, cum vim aëris in ventis et similibus, quæ vel arbores et turres dejicere possit, animadvertissent, opinati sunt eam vim, quæ hujusmodi missilia post primam impulsionem deducat et comitetur, aëri deberi attribui, pone corpus, quod movetur, colleeto et ingruenti, cujus impetu corpus, tanquam navis in gurgite aquarum, vehatur. Atque hi certe rem non deserunt, atque contemplationem ad exitum perducunt; sed tamen a veritate aberrant. Res autem vere in hunc modum se habet. Præcipuus motus partibus ipsius corporis, quod volat, inesse videtur; qui eum visu, ob nimiam subtilitatem, non percipiatur, homines non satis attendentes, sed levi observatione rem transmittentes, latet. Accuratius autem scrutanti manifeste constat, corpora, quæ duriora sunt, pressionis esse impatientissima, et ejusdem veluti sensum acutissimum habere, adeo ut, quam minimum a naturali positione depulsa, magna pernicitate nitantur ut liberentur et in pristinum statum restituantur. Quod ut fiat, partes singulæ, facto principio a

parte pulsata, se invicem non secus, ac vis externa, protrudunt, ac vigent; et fit continua et intensissima (licet minime visibilis) partium trepidatio et commotio. Atque hoc videmus fieri in exemplo vitri, sacchari, et hujusmodi rerum fragilium, quæ si mucrone aut ferro acuto secentur aut dividantur, protinus in aliis partibus, a tactu mucronis remotis, quasi in instanti disrumpuntur. Quod evidenter demonstrat communicationem motus pressuræ in partes succedentes; qui motus, cum per omnia moliatur, et ubique tentet, ea parte confractionem inducit, qua ex præcedente corporis dispositione minus fortis erat compactio. Neque tamen ipse motus, quando per omnia turbat et percurrit, sub aspectum venit, donec aperta fiat effractio, sive continuitatis solutio. Rursus videmus, si forte filum ferreum, aut bacillum, aut durior pars calami (vel hujusmodi corpora, quæ flexibilia quidem sunt, non absque aliqua renitentia) inter pollicem et indicem per extrema sua curventur et stringantur, ea statim prosilire. Cujus motus causa manifeste deprehenditur non esse in extremis corporis partibus, quæ digitis stringuntur, sed in medio, quod vim patitur, ad cujus relevationem motus ille se expedit. In hoc autem exemplo plane liquet, causam illam motus, quam adducunt de impulsione aëris, excludi. Neque enim ulla fit percussio, quæ aërem immittat. Atque hoc etiam levi illo experimento evincitur, cum pruni nucleum recentem et lubricum premimus, digitosque paulatim adducimus, atque hac ratione emittimus. Nam et in hoc quoque exemplo compressio illa vice percussionis est. Evidentissimus autem hujusce motus effectus cernitur in perpetuis conversionibus sive rotationibus corporum missilium dum volant. Siquidem ea procedunt utique, sed progressum suum faciunt in lineis spiralibus, hoc est, procedendo et rotando. Atque certe is motus spiralis, cum tam sit rapidus, et nihilominus tam expeditus, et rebus quodammodo familiaris, nobis dubitationem movit, num forte ex altiore principio non penderet. Sed existimamus non aliam causam hujus rei subesse, quam eandem, quam nunc tractamus. Namque pressura corporis affatim motum in partibus sive minutiis ejus excitat, ut se quacunque via expediant et liberent. Itaque corpus non solum in linea recta agitur et provolat, sed undequaque experitur, atque ideo se rotat; utroque enim modo ad se laxandum nonnihil proficit. Atque in rebus solidis subtile quiddam et abditum: in mollibus evidens et quasi palpabile est. Nam ut cera vel plumbum, et hujusmodi mollia, malleo percussa, cedunt, non tantum in directum, sed et in latera, undequaque: eodem modo et corpora dura sive renitentia fugiunt et in recta linea et in circuitu. Cessio enim corporalis in mollibus, et localis in duris, ratione conveniunt; atque in corporis mollis efformatione, corporis duri passio, cum fugit et volat, optime conspicitur. Interim nemo existimet nos præter motum istum (qui caput rei est) non etiam aliquas partes aëri devehenti tribuere, qui motum principalem adjuvare, impedire, flectere, regere possit. Nam et ejus rei potestas est non parva. Atque hæc motus violenti sive mechanici (qui adhuc latuit) explicatio veluti fons quidam practicæ est.

IX. DE CAUSA MOTUS IN TORMENTIS IGNEIS, QUOD EX PARTE TANTUM, NEC EA POTIORE INQUISITA SIT.

Tormentorum igneorum causa, et motus tam potentis et nobilis explicatio, manca est, et ex parte potiore deficit. Aiunt enim pulverem tormentarium, postquam in flammam conversus sit et extenuatus, se dilatare et majus spatium occupare: unde sequi, ne duo corpora in uno loco sint, aut dimensionum penetratio fiat, aut forma elementi destruatur, aut sitas partium præter naturam totius sit (hæc enim dicuntur) corporis, quod obstat expulsionem vel effractionem. Neque nihil est, quod dicunt. Nam et iste appetitus, et materiæ passio, et hujusmodi motus pars aliqua. Sed nihilominus in hoc peccant, quod ad necessitatem istam corporis dilatandi rem præpropera cogitatione deducunt, neque quod natura prius est, distincte considerant. Nam ut corpus pulveris, postquam in flammam mutatus est, majorem locum occupet, necessitatem sane habet; ut autem corpus pulveris inflammetur, idque tam rapide, id simili necessitate non constringitur; sed ex præcedente motuum conflictu et comparatione pendet. Nam dubium non est, quin corpus illud solidum et grave, quod per hujusmodi motum extruditur, vel removetur, antequam cedat, sedulo obnitatur: et si forte robustius sit, victoria potiatur; id est, ut non flamma globum expellat, sed globus flammam suffoceet. Itaque si loco pulveris tormentarii sulphurem vel caphuram vel similia accipias, quæ flammam et ipsa cito corripiunt, et (quia corporum compactio inflammationi impedimento est) ea in grana pulveris, admista cineris juniperi vel alicujus ligni maxime combustilis aliqua portione, efformes; tamen (si nitrum absit) motus iste rapidus et potens non sequitur: sed motus ad inflammationem, a mole corporis renitentis, impeditur et constringitur; nec se explicat aut ad effectum pertingit. Rei autem veritas sic se habet. Motum istum, de quo quæritur, geminatum et compositum reperias. Nam præter motum inflammationis, qui in sulphurea pulveris parte maxime viget, subest alius magis fortis et violentus. Is fit a spiritu crudo et aqueo, qui ex nitro maxime, et nonnihil a carbone salicis, concipitur, qui et ipse expanditur certe (ut vapores subdito calore solent) sed una etiam (quod caput rei est) impetu rapidissimo a calore et inflammatione fugit et crumpit, atque per hoc etiam inflammationi vias relaxat et aperit. Hujusce motus rudimenta et in crepitationibus aridorum foliorum lauri vel hederæ cernimus, cum in ignem mittuntur; et magis etiam in sale, qui ad rei inquisitæ naturam propius accedit. Simile etiam quiddam et in sevo candelarum madido, et in flatulentis ligni viridis flammis sæpe videmus. Maxime autem eminet iste motus in argento vivo, quod corpus maxime crudum, et instar aquæ mineralis est; cujus vires (si ab igne vexetur, et ab exitu prohibeatur) non multo pulveris tormentarii viribus inferiores sunt. Itaque hoc exemplo monendi homines sunt et rogandi, ne in causarum inquisitione unum aliquod arripiant, et facile pronuntient; sed circumspiciant, et contemplationes suas fortius et altius figant.

X. DE DISSIMILITUDINE CŒLESTIUM ET SUBLUNARIUM QUOAD ÆTERNITATEM ET MUTABILITATEM; QUOD NON SIT VERIFICATA.

Quod receptum est, universitatem naturæ veloti per globos recte dividl et distingui; ut alia sit ratio cœlestium, alia sublunnrium, id non absque causa introductum vldetur; si in hae opinione modus adhibeatur. Dubium enim non est, quin regiones sob orbe lunari positæ et supra, ona cum corporibus, quæ sub eisdem spatiis continentur, multis et magnis rebus differant. Neque tamen hoc certios est, qnam illud, corporibus utriusqoe globi inesse communes inclinationes, passiones, et motus. Itaque unitatem naturæ seqoi debemos, et ista distinguere potius, quam discerpere, nec contemplationem frangere. Sed quod ulterius receptum est, cœlestia mutationes non subire, sublonaria vero, aut elementnria quæ vocant, lisdem obnoxia esse; et materiam horum instar meretricis esse, novas formas perpetuo appetentem; illorum autem instar matronæ, stabili et intemerato connubio gaudentem; popularis opinio videtur esse, et infirma, et ex apparentia et superstitione orta. Videtur autem nobis hæc sententin ex utraque parte labilis et sine fundamento. Nam neque cœlo ea competit æternitas, quam fingunt, nec rursus terræ en mutabilitas. Nam quod ad cœlum attinet, non ea nitendom est ratione, mutationes ibidem non fieri, quia sub aspectum non veninnt: aspectum enim frustrat et corporis sobtilitas. et loci distnntia. Nnm variæ inveninntur aëris mutationes, ut in æstu, frigore, odoribus, sonis, manifestum est, quæ sub visum non cadunt. Neqoe rursus (credo) si ocolus in circulo lunæ positus esset, a tanto intervallo, quæ hic apud nos fiunt, et qui in superficie terræ obveniunt motus, et mutationes machinarum, animalium, plantarum, et hujusmodi (quæ pusillæ alicujus festucæ dimensionem, ob distantiam, non æqoant) cernere posset. In corporibus autem, quæ tantæ molis et magnitudinis sunt, ut, ob dimensionum suarum nmplitudinem, spatia distantinrum vincere, atque ad aspectum pervenire possunt, mutationes in regionibus cœlestibos fieri, ex cometis quibusdnm satis liqoet; iis dico, qni certam et constantem configurationem enm stellis fixis servarunt; qualis fuit illa, quæ in Cassiopen, nostra ætate, npparuit. Quod autem ad terram attinet; postquam ad interiora ejus, relicta ea, quæ in superficie et partibus proximis invenitur, incrustatione et mistura, penetratum est, videtur et ibi qnoque similis ei, qoæ in cœlo supponitur, perpetuitas existere. Proculdubio enim est, si in profundo terræ pateretor mutationes, consequentiam earum mutationum, etinm in nostra regione, quam calcamus, majores casus fuisse pariturum, quam fieri videmus. Sane terræ motus pleriqne, et eruptiones nquarum, vel eructationes ignium, non ex profundo ndmodum, sed prope insurgunt, cum parvum aliquod spatium in superficie occopent: quanto enim latiorem regionem et tractum hujusmodi accidentia in facie terræ occupant, tanto magis radices sive origines eorum ad viscera terræ penetrare potandum est. Itaque mnjores terræ motus (majores, inquam, ambitu, non violentia) qui rarius eveniunt, recte comstis ejus generis, de quo diximus, æquiparari possunt; qui et ipsi infrequentes sunt; ut illud mnneat, quod initio diximus, inter cœlom et terram, quatenus nd constantiam et mutationem, non multum interesse. Si quem antem æquabilitas et certitudo motus in corporibus cœlestibus apparens movet, veluti æternitatis comes individuus, præsto est oceanus, qui in æstu suo haod multo minorem constantiam ostendat. Postremo, si qois adhuc instet, negari tamen non posse, quin in ipsa superficie orbis terrarum et partibus proximis, infinitæ fiant motationes, in cœlo non item; huic ita responsum volumns, nec nos hæc per omnia æquare: et tnmen si regiones (quas vocant) soperiorem et mediam aëris pro soperficie aut interiore tunicn cœli accipiamns quemadmodum spatium istod npod nos, quo animalia, plantæ, et mineralia continentur, pro superficie vel exteriore tunicn terræ accipimus; et ibi quoque varias et moltiformes generationes et mutationes inveniri. Itaque tumultus fere omnis, et conflictus, et perturbatio, in confioiis tantum cœli et terræ locum habere videtor. Ut in rebus civilibus fit; In quibus illud frequente osu venit, ut duorum regnorum fines continuis incursionibus et violentiis infestentur, dum interiores otriusque regni provinciæ secura pace atque alta quiete fruontur. Nemo autem, si recte nttenderit, religionem hic opponat. Nam ethnica jactantia solommodo prærogativa ista cœlum materiatum donavit, ut sit incorruptibile. Scripturæ autem sacræ æternltatem et corruptionem cœlo et terræ ex æquo, licet gloriam et venerationem disparem, nttribuot. Nam si legatur, "Solem et lunam fideles et æternos in cœlo testes esse:" legitur etiam, "Generationes migrare, terram autem in æternum manere." Quod autem utrumque transitorium sit, uno oraculo continetur, nempe "Cœlum et terram pertransire, verbum autem Domini non pertransire." Neque hæc nos novi placiti studlo diximus, sed quod ista rerum et regionum conficta divortia et discrimina, ultra quam veritas patitur, magno impedimento ad veram philosophiam, et naturæ contemplationem fore, haud ignari, sed exemplo edocti providemus.

DE FLUXU ET REFLUXU MARIS.

Contemplatio de causis fluxus et refluxus maris, ab antiquis tentata, et deinde omissa, junioribus repetita, et tamen varietate opinionum magis labefactata quam discussa, vulgo levi conjectura refertur ad lunnm, ob consensum nonnullum motus ejusdem cum motn lunæ. Attamen diligentius perscrutanti vestigia quædam veritatis se ostendunt, quæ ad certiora dedocere possint. Itaque ne confusius agatur, primo distinguendi sunt motos maris, qui licet satis inconsiderate multiplicentur a nonnollis, inveniuntor revera tantom quinque; quorum unus tnnquam anomalus est, reliqui constantes. Primus ponator motus ille vagus et varius (quos nppellant) currentium; secundus motus magnus oceani sexhorarius, per quem aqnæ ad littora accedunt et recedunt alternatim bis in die, non exacte, sed cum differentia tali, quæ periodum constituat menstruam. Tertius

motus ipse menstruus, qui nil aliud est quam restitutio motus (ejus quem diximus) diurni ad eadem tempora; quartus motus semimenstruus, per quem fluxus habent incrementa in noviluniis et pleniluniis magis, quam in dimidiis; quintus motus semestris, per quem fluxus habent incrementa auctiora et insignia in æquinoctiis. Atque de secundo illo motu magno oceani sexhorario sive diurno, nobis in præsentia sermo est præcipue et ex intentione, de reliquis solummodo in transitu et quatenus faciant ad hujusce motus explicationem. Primo igitur quod ad motum currentium attinet, dubium non est quin pro eo ac aquæ vel ab angustiis premuntur, vel a liberis spatiis laxantur, vel in magis declivia festinant, ac veluti effundantur, vel in eminentiora incurrunt ac inscendunt, vel fundo labuntur æquabili, vel fundi sulcis et inæqualitatibus perturbantur, vel in alios currentes incidunt, atque cum illis se miscent et cumpatiuntur, vel etiam a ventis agitantur, præsertim anniversariis sive statariis, qui sub anni certas tempestates redeunt, aquas ex his et similibus causis impetus et gurgites suos variare, tam consecutione ipsius motus atque latione, quam velocitate sive mensura motus, atque inde constituere eos quos vocant currentes. Itaque in maribus tum profunditas fossæ sive canalis, atque interpositæ voragines et rupes submarinæ, tum curvitates littorum, et terrarum prominentiæ, sinus, fauces, insulæ multis modis locatæ, et similia, plurima possunt, atque agunt prorsus aquas, earumque meatus et gurgites in omnes partes, et versus orientem, et versus occidentem, austrum versus similiter et septentriones, atque quaquaversum, prout obices illi aut spatia libera et declivia sita sint et invicem configurentur. Segregetur igitur motus iste aquarum particularis, et quasi fortuitus, ne forte ille in inquisitione, quam prosequimur, obturbet. Neminem enim par est constituere et fundare abnegationem eorum, quæ mox dicentur de motibus oceani naturalibus et catholicis, opponendo motum istum currentium, veluti cum thesibus illis minime convenientem. Sunt enim currentes meræ compressiones aquarum, aut liberationes a compressione: suntque, ut diximus, particulares et respectivi, prout locantur aquæ et terræ, aut etiam incumbunt venti. Atque hoc, quod diximus, eo magis memoria tenendum est, atque diligenter advertendum, quia motus ille universalis oceani, de quo nunc agitur, adeo mitis est et mollis, ut a compulsionibus currentium omnino dometur, et in ordinem redigatur, cedatque et ad eorum violentiam agatur et regatur. Id autem ita se habere ex eo perspicuum est vel maxime, quod motus simplex fluxus et refluxus maris in pelagi medio, præsertim per maria lata et exporrecta, non sentiatur, sed ad littora tantum. Itaque nihil mirum si sub currentibus (utpote viribus inferior) lateat et quasi destruatur, nisi quod ille ipse motus, ubi currentes secundi fuerint, eorum impetum nonnihil juvet atque incitet; contra ubi adversi, modicum frænet. Misso igitur motu currentium, pergendum est ad motus illos quatuor constantes, sexhorarium, menstruum, semimenstruum, et semestrem, quorum solus sexhorarius videtur fluxus maris agere et ciere, menstruus vero videtur tantummodo motum illum determinare et restituere. Semimenstruus autem et semestris eundem augere et intendere. Etenim fluxus et refluxus aquarum, qui littora maris ad certa spatia inundat et destituit, et horis variis variat, et vi ac copia aquarum, unde reliqui illi tres motus se dant conspiciendos. Itaque de illo ipso motu fluxus et refluxus sigillatim ac proprie (ut instituimus) videndum. Atque primo illud dari prorsus necesse est, motum hunc, de quo inquirimus, unum ex duobus istis esse, vel motum sublationis et demissionis aquarum, vel motum progressus. Motum autem sublationis et demissionis talem esse intelligimus, qualis invenitur in aqua bullienti, quæ in caldario attollitur et rursum residet. At motum progressus talem, qualis invenitur in aqua vecta in pelvi, quæ unum latus deserit, cum ad latus oppositum advolvitur. Quod vero motus iste neutiquam sit primi generis, occurrit illud imprimis, quod in diversis mundi partibus variant æstus secundum tempora; ut fiant in aliquibus locis fluxus et augmenta aquarum, cum alibi sint ad eas horas refluxus et decrementa. Debuerant autem aquæ, si illæ non progrederentur de loco in locum, sed ex profundo ebullirent, ibique simul se attollere, atque rursus simul se recipere. Videmus enim duos illos alios motus semestrem et semimenstruum per universum orbem terrarum simul perfungi atque operari. Fluxus enim sub æquinoctiis ubique augentur; non in aliis partibus sub æquinoctiis, in aliis sub tropicis; atque similis est ratio motus semimenstrui. Ubique enim terrarum invalescunt aquæ in nouiluniis et pleniluniis, nullibi in dimidiis. Itaque videntur revera aquæ in duobus illis motibus plane attolli et demitti, et veluti pati apogæum et perigæum, quemadmodum cœlestia. Atque in fluxu et refluxu maris, de quo sermo est, contra fit: quod motus in progressu certissimum signum est. Præterea si fluxus aquarum ponatur esse sublatio, attendendum paulo diligentius quomodo ista sublatio fieri possit. Aut enim fiet tumor ab aucto quanto aquarum, aut ab extensione sive rarefactione aquarum in eodem quanto, aut per sublationem simplicem in eodem quanto atque eodem corpore. Atque tertiam illud prorsus adjiciendum. Si enim aqua, qualis est, attollatur, ex hoc relinquatur necessario inane inter terram atque ima aquæ, cum non sit corpus quod succedat. Quod si sit nova moles aquæ, necesse est eam emanare atque scaturire e terra. Sin vero sit extensio tantum, id fiet vel per solutionem in magis rarum, vel appetitum appropinquandi ad alind corpus, quod aquas veluti evocet et attrahat, et in sublimius tollat. Atque certe ista aquarum sive ebullitio, sive rarefactio, sive conspiratio cum alio quopiam corpore ex superioribus, non incredibilis videri possit in mediocri quantitate, atque adhibito etiam bono temporis spatio, in quo hujusmodi tumores sive augmenta se colligere et cumulare possint. Itaque excessus ille aquarum, qui inter æstum ordinarium, atque æstum illum largiorem semimenstruum, aut etiam illum alterum profusissimum semestrem notari possit, cum nec mole excessus inter fluxum et refluxum æquiparetur, atque habeat etiam bene magnum intervallum temporis ad incrementa illa sensim facienda, nihil habeat alienum a ratione. Ut vero tanta erumpat moles aquarum,

quæ excessum illum, qui invenitur inter ipsum fluxum et refluxum, salvet, atque hoc fiat tanta celeritate, videlicet bis in die, ac si terra, secundum vanitatem illam Apollonii, respiraret, atque aquas per singulas sex horas effiaret, ac deinde absorberet; incommodum maximum. Neque moveatur quispiam levi experimento, quod putei nonnulli in aliquibus locis memorentur consensum habere cum fluxu et refluxu maris, unde suspicari quis possit, aquas in cavis terræ conclusas similiter ebullire, in quo casu tumor ille ad motum progressivum aquarum referri commode non possit. Facilis enim est responsio, posse fluxum maris accessione sua multa loca cava ac laxa terræ obturare atque opplere, atque aquas subterraneas vertere, etiam aërem conclusum reverberare, qui serie continuata hujusmodi puteorum aquas trudendo attollere possit. Itaque hoc in omnibus puteis minime fit, nec in nimis adeo, quod fieri debuit, si universa massa aquarum naturam haberet ebullientem per vices, et cum æstu maris consensionem. Sed contra raro admodum fit, ut instar miraculi fere habeatur; quia scilicet hujusmodi laxamenta et spiracula, quæ a puteis ad mare pertingunt, absque obturatione aut impedimento raro admodum inveniantur. Neque abs re est memorare quod referunt nonnulli, in fodinis profundis, non procul a mari sitis, aërem incrassari et suffocationem minari ad tempora fluxus maris; ex quo manifestum videri possit non aquas ebullire (nullæ cum cernuntur) sed aërem retroverti. At certe aliud urget experimentum non contemnendum, sed magni ponderis, cui responsio omnino debetur; hoc est, quod diligenter observatum sit, idque non fortuito notatum, sed de industria inquisitum atque repertum, aquas ad littora adversa Europæ et Floridæ iisdem horis ab utroque littore refluere, neque deserere littus Europæ cum advolvantur ad littora Floridæ, more aquæ (ut supra diximus) agitatæ in pelvi, sed plane simul ad utrumque littus attolli et demitti. Verum hujus objectionis solutio perspicue apparebit in iis, quæ mox dicentur de cursu et progressu oceani. Summa autem rei talis est, quod aquæ a mari Indico profectæ, et ab objectu terrarum veteris et novi orbis impeditæ, truduntur per mare Atlanticum ab austro in boream; ut non mirum sit eas ad utrumque littus simul ex æquo appellere, ut aquæ solent, quæ contruduntur a mari in ostia et canales fluminum, in quibus evidentissimum est motum maris esse progressivum quatenus ad flumina, et tamen littora adversa simul inundare. Verum id pro more nostro ingenue fatemur, idque homines attendere et meminisse volumus, si per experientiam invenintur, fluxus maris iisdem temporibus ad littora Peruviæ atque Chinæ affluere, quibus fluunt ad littora præfata Europæ et Floridæ, opinionem hanc nostram, quod fluxus et refluxus maris sit motus progressivus, abjudicandam esse. Si enim per littora adversa tam maris australis, quam maris Atlantici, fiat fluxus ad eadem tempora, non relinquuntur in universo alia littora, per quæ refluxus ad eadem illa tempora satisfaciat. Verum de hoc judicio faciendo per experientiam (cui causam submisimus) loquimur tanquam securi. Existimamus enim plane, si summa hujus rei per universum terrarum orbem nobis cognita foret, satis æquis conditionibus istud fœdus transigi, nempe ut ad horam aliquam certam fiat refluxus in aliquibus partibus orbis, quantum fiat fluxus in aliis. Quamobrem ex iis, quæ diximus, statuatur tandem, motus iste fluxus et refluxus esse progressivus.

Sequitur jam inquisitio ex qua causa, et per quem consensum rerum, oriatur atque exhibeatur iste motus fluxus et refluxus. Omnes enim majores motus (si sunt iidem regulares et constantes) solitarii, aut (ut astronomorum vocabulo utamur) ferini non sunt, sed habent in rerum natura cum quibus consentiant. Itaque motus illi, tam semimenstruus incrementi, quam menstruus restitutionis, convenire videntur cum motu lunæ. Semimenstruus vero ille sive æquinoctialis cum motu solis. Etiam sublationes et demissiones aquarum cum apogæis et perigæis cœlestium. Neque tamen continuo sequetur (idque homines advertere volumus) quæ periodis et curriculo temporis, aut etiam modo lationis conveniunt, ea natura esse subordinata, atque alterum alteri pro causa esse. Nam non eo usque progredimur, ut affirmemus motus lunæ aut solis pro causis poni motuum inferiorum, qui ad illos sunt analogi; aut solem et lunam (ut vulgo loquuntur) dominium habere super illos motus maris (licet hujusmodi cogitationes facile mentibus hominum illabantur ob veneration em cœlestium) sed et in illo ipso motu semimenstruo (si recte advertatur) mirum et novum prorsus fuerit obsequii genus, ut æstu sub noviluniis et pleniluniis eadem patiantur, cum luna patiatur contraria; et multa alia adduci possint, quæ hujusmodi dominationum phantasias destruant, et eo potius rem deducant, ut ex materiæ passionibus catholicis, et primis rerum coagmentationibus consensus illi oriantur, non quasi alterum ab altero regatur, sed quod utrumque ab iisdem originibus et concausis emanet. Veruntamen (uteunque) manet illud quod diximus, naturam consensu gaudere, nec fere aliquid monodicum, aut solitarium admittere. Itaque videndum de motu fluxus et refluxus maris sexhorario, cum quibus aliis motibus ille convenire aut consentire reperiatur. Atque inquirendum primo de luna, quomodo iste motus cum luna rationes aut naturam misceat. Id vero fieri omnino non videmus, præterquam in restitutione menstrua: nullo modo enim congruit curriculum sexhorarium (id quod nunc inquiritur) cum curriculo menstruo; neque rursus fluxus maris passiones lunæ quascunque sequi deprehenduntur. Sive enim luna sit aucta lumine, sive diminuta, sive illa sit sub terra, sive super terram, sive illa elevetur super horizontem altius aut depressius, sive illa ponatur in meridiano, aut alibi, in nulla prorsus harum consentiunt fluxus atque refluxus.

Itaque, missa luna, de aliis consensibus inquiramus. Atque ex omnibus motibus cœlestibus constat, motum diurnum maxime cartum esse, et minimo temporis intervallo (spatio videlicet viginti quatuor horarum) confici. Itaque consentaneum est, motum istum, de quo inquirimus (qui adhuc tribus partibus diurno brevior est) proxime ad eum motum referri, qui est ex cœlestibus brevissimus; sed hoc rem minus premit. Illud vero longe magis nos movet, quod ita sit iste motus dispertitus, ut ad diurni motus rationes respondeat, ut licet motus aquarum sit motu diurno

quasi innumeris partibus tardior, tamen sit commensurabilis. Etenim spatium sexhorarium est diurni motus quadrans, quod spatium (ut diximus) in motu isto maris invenitur cum ea differentia, quæ coincidat in mensuram motus lunæ. Itaque hoc nobis penitus insedit, ac fere instar oraculi est, motum istum ex eodem genere esse cum motu diurno. Hoc igitur usi fundamento pergemus inquirere reliqua; atque rem omnem triplici inquisitione absolvi posse statuimus. Quarum prima est, An motus ille diurnus terminis cœli contineatur, aut delabatur, et se insinuet ad inferiora? Secunda est, An maria regulariter ferantur ab oriente in occidentem, quemadmodum et cœlum? Tertia, Unde et quomodo fiat reciprocatio illa sexhoraria æstuum, quæ incidit in quadrantem motus diurni cum differentia incidente in rationes motus lunæ? Itaque quod ad primam inquisitionem attinet, arbitramur motum rotationis sive conversionis ab oriente in occidentem esse motum non proprie cœlestem, sed plane cosmicum, atque motum in fluoribus magnis primarium, qui usque a summo cœlo ad imas aquas inveniatur, inclinatione eadem, incitatione autem (id est, velocitate et tarditate) longe diversa; ita tamen ut ordine minime perturbato minuatur celeritate, quo propius corpora accedunt ad globum terræ. Videtur autem primo probabile argumentum sumi posse, quod motus iste non terminetur cum cœlo, quia per tantam cœli profunditatem, quanta interjicitur inter cœlum stellatum et lunam (quod spatium multo amplius est, quam a luna ad terram) valeat atque vigeat iste motus, cum debilis decrementis suis; ut verisimile non sit naturam istiusmodi consensum, per tanta spatia continuatum, et gradatim se remittentem, subito deponere. Quod autem res ita se habeat in cœlestibus, evincitur ex duobus, quæ aliter sequentur, incommodis. Cum enim manifestum sit ad sensum, planetas diurnum motum peragere, nisi ponatur motus iste tanquam naturalis ac proprius in planetis omnibus, confugiendum necessario est vel ad raptum primi mobilis, quod naturæ prorsus adversatur, aut ad rotationem terræ, quod etiam satis licenter excogitatum est, quoad rationes physicas. Itaque in cœlo ita se res habet. Postquam autem a cœlo discessum est, certe porro iste motus evidentissime in cometis humilioribus, qui, cum inferiores orbe lunæ sint, tamen ab oriente in occidentem evidenter rotant. Licet enim habeant motus suos solitarios et irregulares, tamen in illis ipsis conficiendis interim communicandis cum motu ætheris et ad eandem conversionem feruntur; tropicis vero non continentur fere, nec habent regulares spiras, sed excurrunt quandoque versus polos, sed nihilominus in consecutione ab oriente in occidentem rotant. Atque hujusmodi motus iste licet magna acceperit decrementa (cum quo propius descendatur versus terram, eo et minoribus circulis conversio fiat, et nihilominus tardius) validus tamen utique manet, ut magna spatia brevi tempore vincere queat. Circumvolvuntur enim hujusmodi cometæ circa universum ambitum, et terræ, et aëris inferioris, spatio viginti quatuor horarum, cum horæ unius aut alterius excessu. At postquam ad eas regiones descensu continuato perventum sit, in quas terra agit non solum communicatione naturæ et virtutis suæ (quæ motum circularem reprimit et sedat) sed etiam immissione materiali particularum substantiæ suæ per vapores et halitus crassos: iste motus immensum hebescit, et fere corruit, sed non propterea prorsus exinanitur aut cessat, sed manet languidus et tanquam latens. Etenim jam in confesso esse cœpit, navigantibus intra tropicos, ubi libero æquore motus aëris percipitur optime, et aër ipse (veluti et cœlum) majoribus circulis, ideoque velocius rotat, spirare auram perpetuam et jugem ab oriente in occidentem; adeo ut qui zephyro uti volunt, eum extra tropicos sæpius quærant et procurent. Itaque non extinguitur iste motus etiam in aëre infimo, sed piger jam devenit et obscurus, ut extra tropicos vix sentiatur. Et tamen etiam extra tropicos in nostra Europa in mari, cœlo sereno et tranquillo, observatur aura quædam solisequa, quæ ex eodem genere est; etiam suspicari licet, quod hic in Europa experimur, ubi flatus euri acris est et desiccans, cum contra zephyri sit generalis et humectans, non solum ex hoc pendere, quod ille a continente, iste ab oceano apud nos spiret; sed etiam ex eo, quod euri flatus, cum sit in eadem consequentia cum motu aëris proprio, eum motum incitet et irritet, ac propterea aërem dissipet et rarefaciat: zephyri vero flatus, qui in contraria consequentia sit cum motu aëris, aërem in se vertat, et propterea inspisset. Neque illud contemnendum, quod vulgari observatione recipitur, nubes, quæ feruntur in sublimi, plerumque movere ab oriente in occidentem, cum venti circa terram ad eadem tempora fiant in contrarium. Quod si hoc non semper facinnt, id in causa esse, quod sint quandoque venti contrarii, alii in alto, alii in imo; illi autem in alto spirantes (si adversi fuerint) motum istum verum aëris disturbent. Quod ergo cœli terminis non contineatur iste motus, satis patet.

Sequitur ordine secunda inquisitio; An aquæ ferantur regulariter et naturaliter ab oriente in occidentem? Cum vero aquas dicimus, intelligimus aquas coacervatas, sive massas aquarum, quæ scilicet tantæ sunt portiones naturæ, ut consensum habere possint cum fabrica et structura universi. Atque arbitramur plane, eundem motum massæ aquarum competere atque inesse, sed tardiorem esse, quam in aëre, licet ob crassitudinem corporis sit magis visibilis et apparens. Itaque ex multis, quæ ad hoc adduci possent, tribus in præsens contenti erimus experimentis, sed iisdem amplis et insignibus, quæ rem ita esse demonstrant. Primum est, quod manifestus reperintur motus et fluxus aquarum ab oceano Indico usque in oceanum Atlanticum, isque incitatior et robustior versus fretum Magellanicum, ubi exitus datur versus occidentem; magnum itidem ex adversa parte orbis terrarum a mari Scythico in mare Britannicum. Atque hæ consequentiæ aquarum manifesto volvuntur ab oriente in occidentem. In quo advertendum imprimis, in istis tantum duobus locis maria esse pervia et integrum circulum conficere posse; cum contra per medios mundi tractus, objectu duplici veteris et novi orbis absindantur et compellantur (tanquam in ostia fluminum) in duos illos alveos oceanorum geminorum Atlantici et australis, qui oceani exporriguntur inter austrum et septentriones; quod adiaphorum est ad motum con-

secutionis ab oriente in occidentem: ut verissime omnino capiatur motus verus aquarum ab istis, quas diximus, extremitatibus orbis, ubi non impediuntur, sed permeant. Atque primum experimentum hujusmodi est. Secundum autem tale.

Supponatur fluxum maris ad ostium freti Herculei fieri ad horam aliquam certam, constat accedere fluxum ad caput sancti Vincentii tardius, quam ad ostium illud; ad caput Finis-terræ, tardius, quam ad caput sancti Vincentii; ad Insulam Regis tardius, quam ad caput Finis-terræ; ad insulam Hechas tardius, quam ad Insulam Regis; ad ingressum canalis Anglici tardius, quam ad Hechas; ad littus Normannicum tardius, quam ad ingressum canalis. Hucusque ordinatim; ad Gravelingam vero, verso prorsus ordine (idque magno saltu) quasi ad eandem horam cum ostio freti Herculei. Hoc experimentum secundum ad experimentum primum trahimus. Existimamus enim (quemadmodum jam dictum est) in mari Indico, et in mari Scythico veros esse cursus aquarum, ab oriente scilicet in occidentem, pervios et integros; at in alveis maris Atlantici atque australis compulsos et transversos, et refractos ab objectu terrarum, quæ utrinque in longum ab austro ad boream exporriguntur, et nusquam, nisi versus extremitates, liberum dant exitum aquis. Verum compulsio illa aquarum, quæ causatur a mari Indico versus boream, et in opposito a mari Sythico versus austrum, spatiis immensum differunt ob differentem vim et copias aquarum. Universus igitur oceanus Atlanticus usque ad mare Britannicum cedit impulsioni maris Indici; at superior tantum Atlantici maris pars, nimirum ea quæ jacet versus Daniam et Norvegiam, cedit impulsioni maris Scythici. Hoc vero ita fieri necesse est. Etenim duæ magnæ insulæ veteris orbis et novi orbis eam sunt sortitæ figuram, atque ita exporriguntur, ut ad septentriones latæ, ad austrum acutæ sint. Maria igitur contra ad austrum magna occupant spatia, ad septentriones vero (ad dorsum Europæ et Asiæ atque Americæ) parva. Itaque ingens illa moles aquarum, quæ venit ab oceano Indico, et reflectit in mare Atlanticum, potis est compellere et trudere cursum aquarum continua successione quasi ad mare Britannicum, quæ successio est versus boream. At illa longe minor portio aquarum, quæ venit a mari Scythico, quæque etiam liberum fere habet exitum in cursu suo proprio versus occidentem ad dorsum Americæ, non potis est cursum aquarum compellere versus austrum, nisi ad eam, quam diximus, metam, nempe circa fretum Britannicum. Necesse est autem ut in motibus istis oppositis sit tandem aliqua meta, ubi occurrant et conflictentur, atque ubi in proximo mutetur subito ordo accessionis; quemadmodum circa Gravelingam fieri diximus, limite videlicet accessionis Indicæ et Scythicæ. Atque inveniri euripum quendam ex contrariis fluxibus circa Hollandiam, non solum ex ea (quam diximus) inversione ordinis horarum in fluxu, sed etiam peculiari et visibili experimento, a plurimis observatum est. Quod si hæc ita fiant, reditur ad id, ut necesse sit fieri, ut quo partes Atlantici et littora magis extenduntur ad austrum, et appropinquant mari Indico, eo magis fluxus antevertat in præcedentia, utpote qui oriatur a motu illo vero in mari Indico; quo vero magis ad boream (usque ad limitem communem, ubi repelluntur, a gurgite antistropho maris Scythici) eo tardius atque in subsequentia. Id vero ita fieri experimentum istud progressus a freto Herculeo ad fretum Britannicum, plane demonstrat. Itaque arbitramur etiam fluxum circa littora Africæ antevertere fluxum circa fretum Herculeum, et, verso ordine, fluxum circa Norvegiam antevertere fluxum circa Suediam; sed id nobis experimento aut historia compertum non est.

Tertium experimentum est tale; maria clausa ex altera parte, quæ sinus vocamus, si exporriguntur inclinatione aliqua ab oriente in occidentem, quæ in consequentia est cum motu vero aquarum, habent fluxus vigentes et fortes: si vero inclinatione adversa, languidos et obscuros. Nam et mare Erythræum habet fluxum bene magnum, et sinus Persicus magis recta petens occidentem, adhuc majorem. At mare Mediterraneum, quod est sinuum maximus, et hujus partes Tyrrhenum, Pontus, et Propontis, et similiter mare Balticum, quæ omnia reflectunt ad orientem, destituuntur fere, et fluxus habent imbecillos. At ista differentia maxime cluecscit in partibus Mediterranei, quæ quamdiu vergunt ad orientem, aut flectunt ad septentriones (ut in Tyrrheno et in iis, quæ diximus, maribus) quiete agunt absque æstu multo: at postquam se converterint ad occidentem, quod fit in mari Adriatico, insignem recuperant fluxum. Cui accedit et illud, quod in Mediterraneo refluxus ille tenuis (qualis invenitur) incipit ab oceano, fluxus a contraria parte, ut aqua magis sequatur cursum ab oriente, quam refusionem oceani. Atque his tantum tribus experimentis in præsentia utemur ad inquisitionem illam secundam.

Possit tamen adjici probatio quædam consentanea cum his, quæ dicta sunt, sed abstrusioris cujusdam naturæ; ea est, ut petatur argumentum hujusce motus ab oriente in occidentem, quem aquis astruximus, non solum a consensu cœli (de quo jam dictum est) ubi iste motus in flore est ac fortitudine præcipua, sed etiam a terra, ubi protinus videtur cessare, ita ut ista inclinatio sive motus vere sit cosmicus, atque omnia a fastigiis cœli usque ad interiora terræ transverberet. Intelligimus enim conversionem istam ab oriente in occidentem fieri scilicet (quemadmodum revera invenitur) super polos australem et borealem. Verissime autem diligentia Gilberti nobis hoc reperit; omnem terram, et naturam (quam appellamus terrestrem) non delinitam sed rigidam, et, ut ipse loquitur, robustam, habere directionem sive verticitatem latentem, sed tamen per plurima exquisita experimenta se prodentem, versus austrum et boream. Atque hanc tamen observationem plane minuimus, atque ita corrigimus, ut hoc asseratur tantum de exterioribus concretionibus circa superficiem terræ, et minime producatur ad viscera ipsius terræ (nam quod terra sit magnes interim levi omnino phantasia arreptum est; fieri enim prorsus nequit, ut interiora terræ similia sint alicui substantiæ, quam oculus humanus videt, siquidem omnia apud nos a sole et cœlestibus laxata, subacta, aut infracta sint, ut cum iis, quæ talem nacta sunt locum, quo vis cœlestium non penetret, neutiquam consentire possint) sed quod nunc agitur, superiores incrustationes sive concretiones terræ videntur consentire cum conversioni-

bus cœli, aëris, atque aquarum, quatenus consistentia et determinata cum liquidis et fluidis consentire queant, hoc est, non ut volvantur super polos, sed dirigantur, et vertantur versus polos. Cum enim in omni orbe volubili, qui vertitur super polos certos, neque habet motum centri, sit participatio quædam naturæ mobilis et fixæ; postquam per naturam consistentem, sive se determinantem, ligatur virtus volvendi; tamen manet, et intenditur, et unitur virtus illa et appetitus dirigendi se; ut directio et verticitas ad polos in rigidis, sit eadem res cum volubilitate super polos in fluidis.

Superest inquisitio tertia. Unde et quomodo fiat reciprocatio illa sexhoraria æstuum, quæ incidit in quadrantem motus diurni cum differentia quam diximus? Id ut intelligatur, supponatur orbem terrarum universum aqua cooperiri, ut in diluvio generali. Existimamus aquas, quippe ut in orbe integro, neque impedito, semper in progressu se commoturas ab oriente in occidentem singulis diebus ad certum aliquod spatium (idque profecto non magnum, ob exsolutionem et enervationem virium hujus motus in confiniis terræ) cum ex nulla parte objectu terræ impediantur aquæ, aut cohibeantur. Supponatur rursus, terram unicam insulam esse, eamque in longitudine exporrigi inter austrum et septentriones, quæ forma ac situs motum ab oriente in occidentem maxime frænat et obstruit; existimamus aquas cursum suum directum et naturalem ad tempus porrecturas, sed rursus ab insula illa repercussas paribus intervallis relapsuras; itaque unicum tantum fluxum maris in dies futurum fuisse, et unicum similiter refluxum, atque horum singulis circiter duodecim horas attributum iri. Atque ponatur jam (quod verum est et factum ipsum) terram in duas insulas divisam esse, veteris scilicet et novi orbis (nam terra australis situ suo rem istam non magnopere disturbat, quemadmodum nec Grœnlandia aut Nova Zembla) easque ambas insulas per tres fere mundi zonas exporrigi, inter quas duo oceani Atlanticus et australis interfluunt, et ipsi nunquam nisi versus polos pervii; existimamus necessario sequi, ut duo isti obices naturam duplicis reciprocationis universæ moli aquarum insinuent et communicent, et fiat quadrans ille motus diurni; ut unde scilicet utrinque frænatis, fluxus et refluxus maris bis in die, per spatia scilicet sex horarum, se explicet, cum duplex fiat processio, et duplex itidem repercussio. Illæ vero duæ insulæ si instar cylindrorum aut columnarum, per quas exporrigerentur æquis dimensionibus et rectis littoribus, facile demonstraretur, et enivis occurreret iste motus, qui jam tanta varietate posituræ terræ et maris confundi videtur et obscurari. Neque etiam est difficile conjecturam capere nonnullam qualem isti motui aquarum incitationem tribuere consentaneum sit, et quanta spatia in uno die conficere possit. Si enim sumantur (in æstimationem hujus rei) littora aliqua ex iis quæ minus montosa aut depressa sunt, et oceano libero adjacent, et capiatur mensura spatii terræ, inter metam fluxus et metam refluxus, interjacentis, atque illud spatium quadruplicetur propter æstus singulis diebus quaternos, atque is numerus rursus duplicetur propter æstus ad adversa littora ejusdem oceani, atque huic numero nunnihil in cumulum adjiciatur, propter omnium littorum altitudinem, quæ ab ipsa fossa mari semper aliquantum insurgunt; ista computatio illud spatium productura est, quod globus aquæ uno die, si liber ab impedimento esset, ac in orbe circa terram semper in progressu moveret, conficere possit; quod certe nil magnum est. De differentia autem illa, quæ coincidit in rationes motus lunæ, et efficit periodum menstruam; id fieri existimamus, quod spatium sexhorarium non sit mensura exacta reciprocationis; quemadmodum nec motus diurnus ullcujus planetarum non restituitur exacte in horis viginti quatuor, minime autem omnium luna. Itaque mensura fluxus et refluxus non est quadrans motus stellarum fixarum, qui est viginti quatuor horarum, sed quadrans diurni motus lunæ.

MANDATA.

Inquiratur utrum hora fluxus circum littora Africæ antevertat horam fluxus circa fretum Herculeum? Inquiratur utrum hora fluxus circa Norvegiam antevertat horam fluxus circa Suediam, et ille similiter horam fluxus circa Gravelingam?

Inquiratur utrum hora fluxus ad littora Brasiliæ antevertat horam fluxus ad littora Hispaniæ novæ et Floridæ?

Inquiratur utrum hora fluxus ad littora Chinæ non inveniatur ad vel prope horam fluxus ad littora Peruviæ, et ad vel prope horam refluxus ad littora Africæ et Floridæ?

Inquiratur quomodo hora fluxus ad littora Peruviana discrepet ab hora fluxus circa littora Hispaniæ novæ, et particulariter quomodo se habeant differentiæ horarum fluxuum ad utraque littora isthmi in America; et rursus quomodo hora fluxus ad littora Peruviana respondeat horæ fluxus circa littora Chinæ?

Inquiratur de magnitudinibus fluxuum ad diversa littora, non solum de temporibus sive horis. Licet enim causentur fere magnitudines fluxuum per depressiones littorum, tamen nihilominus communicant etiam cum ratione motus veri maris, prout secundus est aut adversus.

Inquiratur de mari Caspio (quæ sunt bene magnæ portiones aquarum conclusæ absque ullo exitu in oceanum) si patiantur fluxum et refluxum, vel qualem, siquidem nostra fert conjectura aquas in Caspio posse habere fluxum unicum in die, non geminatum, atque talem ut littora orientalia ejusdem maris deserantur, cum occidentalia alluantur.

Inquiratur utrum fluxus augmenta in noviluniis et pleniluniis, atque etiam in æquinoxiis, fiant simul in diversis mundi partibus? Cum autem dicimus *simul*, intelligimus non eadem hora, (variantur enim horæ secundum progressus aquarum ad littora, ut diximus,) sed eodem die.

MORÆ.

Non producitur inquisitio ad explicationem plenum consensus motus menstrui in mari cum motu lunæ; sive illud fiat per subordinationem, sive per concausam.

ZYZYGIÆ.

Inquisitio præsens conjungitur cum inquisitione utrum terra moveatur motu diurno? si enim æstus maris sit tanquam extrema diminutio motus diurni, sequetur globum terræ esse immobilem, aut saltem moveri motu longe tardiore, quam ipsas aquas.

INSTAURATIONIS MAGNÆ

PARS QUARTA.

SCALA INTELLECTUS, SIVE FILUM LABYRINTHI.

QUÆ EST,

INSTAURATIONIS MAGNÆ PARS QUARTA.

Difficilis sane foret reprehensio eorum, quibus nihil sciri placuit, si decretum durum interpretatione molliore correxissent. Si quis enim asserat, hoc ipsum scire, recte acceptum, esse per causas scire, causarum autem cognitionem gliscere, et serie et veluti catena perpetua ad notissima naturæ scandere, adeo ut particularium rerum cognitio, absque exacta universæ naturæ comprehensione, proprie non absolvatur; non facile invenias, quod sano cum judicio contradici possit. Nam et verum alicujus rei scientiam haberi posse, antequam mens in causarum explicatione plane consistat, minus consentaneum; et perfectam universi cognitionem humanæ naturæ attribuere atque asserere, temerarium fortasse quiddam, atque impotentis cujusdam animi censeri possit. Verum illi contra, nulla hujusmodi usi interpretatione aut moderatione, sensuum oracula prorsus prophanare non veriti sunt; quod cum summa rerum desperatione conjunctum est. Quod si verum omnino dicendum sit; etiamsi ab hac calumnia abstinuissent, tamen hæc ipsa lis intempestive et contentiose mota videatur, cum citra istam, quam intelligere videntur, ipsissimam veritatem, tantus humanæ industriæ pateat campus, ut sit res præpostera et quasi mentis commotæ et perturbatæ, de extremis obtinendis solicitum, tantas in medio sitas utilitates prætermittere. Nam utcunque per veri et probabilis distinctionem, scientiæ certitudinem destruere, usum retinere, videri volunt, atque, quoad activam partem, delectum rerum illæsum relinquere; tamen, sublata ex animis hominum veritatis exquirendæ spe, proculdubio nervos inquisitioni humanæ inciderunt, et promiscua quærendi licentia, inveniendi negotium in exercitationem quandam ingenii et disputationis verterunt. Veruntamen negare plane non possumus, quin si qua nobis cum antiquis intercedat societas, ea cum hoc genere philosophiæ maxime conjuncta sit; cum multa ab illis de sensuum variationibus, et judicii humani infirmitate, et de cohibendo et sustinendo assensu, prudenter dicta et animadversa probemus; quibus etiam innumera alia, quæ eodem pertinent, adjungere possemus; adeo ut inter nos et illos hoc tantum intersit, quod illi nil vere sciri posse prorsus, nos nil vere sciri posse ea, qua adhuc gens humana ingressa est, via, statuamus. Neque vero hujus societatis nos pudet. Si enim in hunc cœtum recipiantur non solum ii, qui sententia et placito hoc tenent et opinantur, sed et illi, qui idem aut forma ipsa interrogandi et objiciendi præ se ferunt, aut conquerendo de rerum obscuritate, et indignando, fatentur, et quasi clamant, aut secreto animo agitant, et raris et occultis vocibus veluti insusurrant; invenias in hoc numero viros ex antiquis longe maximos, et contemplationum principes, in quorum consortium includi neminem pœniteat. Pronuntiandi enim confidentiam fortasse unus aut alter ex antiquis usurpavit; neque tamen invaluit ea ipsa, nisi haud ita pridem barbaris seculis, nunc autem factione quadam atque consuetudine et incuria retinetur. Sed tamen rursus in hac, de qua diximus, societate facile quis perspexerit, nos erga illos viros initiis opinionum conjunctos, exitu in immensum divisos esse. Etsi enim primo non multum dissentire videamur, quod illi incompetentiam humani intellectus simpliciter, non sub modo asseramus; nihilominus huc res redit, ut illi, nullum huic malo remedium invenientes aut sperantes, negotium deserant, et sensus certitudinem invadendo, scientiam ab imis fundamentis evertant: nos, novam viam afferentes, tum sensus tum mentis errores regere et restituere conemur. Itaque illi, jactam arbitrati aleam, ad ingenii quandam peregrinationem liberam et amœnam se vertunt; nobis ex opinione nostra difficilis et remota obvenit provincia, quæ ut generi humano felix et fausta sit, perpetuo precamur. Itaque initia viarum secundo libro descripsimus; easdem ipsi continuo ingressi, tertio phænomena universi et historiam tractavimus; in quo certe sylvas naturæ, et varitione infinita experimentorum veluti foliis opacas et obscuras, et observationum subtilitate, veluti virgultis et vepribus, implicatas, penetravimus et præterivimus. Atque nunc ad magis aperta fortasse, sed tamen ad magis

ardua pervenimus, ex sylvis scilicet ad radices montium. Nam ab historia ad universalia certo atque constanti tramite (licet via nova et intentata) ducemus. Atque certe non male in vias contemplationum conveniret illud celebre et decantatum apud antiquos bivium vitæ activæ, ex quo via altera, primo ingressu plana et facilis, ducebat ad prærupta et impervia; altera, a principio ardua et suspensa, in plana desinebat. Nam eodem prorsus modo, qui jam inde a prima inquisitione immobilia quædam in scientiis principia prensabit, quibus acquiescens cætera veluti per otium expediat; illum, si modo perrexerit, nec, nimium sibi placens aut displicens, ab inquisitione destiterit, prioris viæ fortuna manet. Qui autem judicium cohibere, et gradatim ascendere, et rerum, veluti montium juga, unum primo, deinde alterum, ac rursus alterum superare cum patientia vera et indefessa sustinuerit, ille ad summitates et vertices naturæ matre perveniet, ubi et statio serena, et pulcherrimus rerum prospectus, et descensus molli clivo ducens ad omnes practicas. Itaque consilium nostrum est, veræ et legitimæ de rebus inquisitionis (ut in secundo libro præcepta) ita hic exemplaria proponere et describere pro varietate subjectorum; idque ea forma, quam cum veritate summum consensum habere putamus, atque ut probatam et electam tradimus. Neque tamen, more apud homines recepto, omnibus hujus formulæ partibus necessitatem quandam attribuimus, tanquam unicæ esset et inviolabiles. Neque enim hominum industriam et felicitatem veluti ad columnam alligandas existimamus. Atque nihil officit, quo minus ii, qui otio magis abundant, aut a difficultatibus, quas primo experientem sequi necesse est, liberi jam erunt, rem monstratam in potius perducant. Quin contra, artem veram adolescere statuimus.

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PARS QUINTA.

PRODROMI, SIVE ANTICIPATIONES PHILOSOPHIÆ SECUNDÆ:

INSTAURATIONIS MAGNÆ PARS QUINTA.

PRÆFATIO.

Existimamus eum et amantis civis et viri prudentis personam bene simul sustinuisse, qui interrogatus, an optimas leges suis civibus dedisset, Optimas certe, dixit, ex iis, quas illi accepturi fuissent. Atque certe quibus non tantum bene cogitasse satis est (quod non multo secus est ac bene somniasse) nisi obtineant quoque, et rem ad affectum perducant, iis non optima utique, sed ex iis, quæ probari verisimile est, potissima quandoque eligenda sunt. Nobis vero, licet humanam rempublicam, patriam communem, summo prosequamur amore, tamen legislatoria illa ratione, et delectu uti liberum non est. Neque enim leges intellectui aut rebus damus ad arbitrium nostrum, sed tanquam scribæ fideles ab ipsius naturæ voce latas et prolatas excipimus et describimus. Itaque sive illæ placeant, sive par opinionum suffragia antiquentur, fides nostra omnino exsolvenda est. Neque tamen spem abjecimus, quin sint atque exoriantur apud posteros nonnulli, qui optima quæque capere et concoquere possint, et quibus ea perficere et colere euræ erit. Itaque ad illa ipsa tendere, atque fontes rerum et utilitatem aperire, et viarum indicia undique conquirere (invocata Numinis ope) nunquam, dum in vivis erimus, desistemus. Iidem nos de eo, quod ad omnes pertinere, et in commune prodesse possit, soliciti, dum ad majora contendimus, minora non aspernamur (cum illa remota, hæc parata esse soleant) nec potiora (ut arbitramur) afferentes, idcirco veteribus ac receptis, quominus illa apud plurimos valeant, intercedimus; quinetiam ea ipsa et aucta et emendata, et in honore esse cupimus. Neque enim homines, aut omnes aut omnino, aut statim a receptis et creditis abducere conamur. Sed quemadmodum sagitta aut missile fertur certe in processu, sed tamen interim conversiones suas perpetuo expedit progrediendo, et nihilominus rotando; ita et nos, dum ad ulteriora rapimur, in receptis et cognitis volvimur et circumferimur. Quamobrem nos quoque rationis ipsius communis et demonstrationum vulgarium (abdicato licet imperio earum) honesta opera utimur; atque ea, quæ nobis secundum eas inventa et judicata sunt, quæque plurimum et veritatis et utilitatis habere possunt, pari cum cæteris jure proponemus. Sed tamen neque per hoc iis, quæ de rationis nativæ et demonstrationum veterum incompetentia dicta sunt, derogatum quidquam intelligimus. Quin hæc potius adjunximus ad tempus, et in gratiam eorum, qui justa excusatione aut virium aut occupationum retardati, contemplationes suas intra veteres scientiarum plagas et provincias, aut saltem earum confinia contermina, sistere volent; eadem iis, qui veram naturæ interpretationem secundum indicia nostra aceedent, eamque molientur, loco diverticulorum aut tabernaculorum in via præbitorum ad solatium et levamentum esse queant; atque interim humanas fortunas aliqua ex parte juvare, et mentes cogitationibus, quæ paulo arctiorem cognationem habeant cum natura, perfundere. Id vero ex faeultate aliqua nostra, aut ejus fiducia, minime ominamur. Verum nobis dubium non est, si quis mediocris licet ingenii, sed tamen animi maturus, idola mentis suæ deponere, atque inquisitionem de integro sibi decernere, atque inter vera historiæ naturalis atque ejus calculos attente et diligenter et libere versari velit et possit; quin ille ipse, quisquis sit, longe altius in naturam penetraturus sit ex sese, et propriis et genuinis mentis viribus, denique ex meris anticipationibus suis, quam per omnigenam auctorum lectionem, aut meditationem abstractam infinitam, aut disputationes assiduas et repetitas; etsi machinas non admoverit, nec interpretandi formam secutus fuerit. Quare et simile quippiam nobis usu venire posse non diffidimus; præsertim cum accedat interpretandi experimentum et exercitatio; quam ipsum habitum mentis corrigere et mutare probabile est. Neque tamen hæc in eam partem accipi volumus, si fidem, quam antiquorum placitis denegavimus, nostris adhiberi postulemus. Quin contra testamur et profitemur, nos ipsos istis, quæ jam proponemus, qualiacunque ea sint, teneri minime velle, ut omnia philosophiæ nostræ secundæ et inductivæ tanquam integra serventur. Cogitata antem ipsa spargere, non methodo revincire visum est. Hæc enim forma pubescentibus tanquam a stirpe de integro scientiis debetur; atque ejus est, qui non artem constituere ex connexis, sed inquisitionem liberam instituere in singulis, in præsentia tantum velit.

OPUSCULA PHILOSOPHICA.

FRANCISCI BACONI DE VERULAMIO

COGITATA ET VISA DE INTERPRETATIONE NATURÆ,

SIVE DE INVENTIONE RERUM ET OPERUM.

Franciscus Baconus sic cogitavit. Scientiam, in cujus possessione genus humanum adhuc versatur, ad certitudinem et magnitudinem operum non accedere. Medicos siquidem morbos complures insanabiles pronuntiare, et in reliquorum cura sæpius errare et deficere; alchymistas in spei suæ amplexibus senescere et immori: magorum opera fluxa nec fructuosa; mechanicas artes non multum lucis a philosophia petere, sed experientiæ telas, lentas sane ac humiles, paulatim continuare. Casum, auctorem rerum proculdubio utilem; sed qui per longas ambages et circuitus donaria sua in homines spargat. Itaque viam est ei; inventa hominum, quibus utimur, admodum imperfecta et immatura censeri: nova vero hoc scientiarum statu, non nisi per seculorum spatia exspectari; eaque ipsa, quæ hactenus humana exhibuit industria, philosophiæ haud attribui.

Cogitavit et illud; in iis rerum humanarum angustiis, id maxime et ad præsens deploratum et in futurum ominosum esse, quod homines, contra bonum suum, cupiunt ignorantiam ignominiæ eximere, et sibi per inopiam istam satisfieri. Medicus enim præter cautelas artis suæ (in quibus ad existimationem artis tuendam haud parum præsidii est) hanc generalem veluti totius artis cautelam advocat; quod artis suæ infirmitatem in naturæ calumniam vertit; et quod ars non attingit, id ex arte impossibile in natura supponit. Neque certe damnari potest ars, cum ipsa judicet. Etiam philosophia, ex qua medicina ista (quam in manibus habemus) excisa est, habet et illa et in sinu nutrit quædam posita aut placita, in quæ si severius inquiratur, hoc omnino persuaderi volunt, nil arduum aut in natura imperiosum ab arte vel ope humana exspectari debere. Ab hoc fonte illud: calorem astri sive solis, et calorem ignis toto genere differre: et illud, compositionem opus hominis, at mistionem opus solius naturæ esse; et similia; quæ si diligentius notentur, omnino pertinent ad humanæ potestatis circumscriptionem malitiosam, et ad quæsitam et artificiosam desperationem, quæ non solum spei auguria, sed etiam experiendi alens abjiciat, et omnes industriæ stimulos et nervos incidat; dum de hoc tantum soliciti sint, ut ars perfecta censeatur, et gloriæ vanissimæ et perditissimæ dant operam; scilicet, ut quicquid inventum non sit, id nec inveniri posse credatur. Alchymista vero ad artis suæ sublevationem errores proprios reos substituit, secum accusatorie reputando, se aut artis et auctorum vocabula non satis intellexisse, unde ad traditionum et ore tenus eloquiorum susurros anxium applicat, aut in practicæ scrupulis, proportionibus, et momentis aliquid titubatum esse: unde experimenta felicioribus (ut putat) auspiciis in infinitum repetit. Ac interim cum inter experimentorum vertiginosas ambages, in inventa quædam, aut ipsa facie nova, aut utilitate non contemnenda, impingat; hujusmodi pignoribus animum pascit, eaque in majus ostentat et celebrat, reliqua spe sustentat. Magus, cum nonnulla supra naturam (pro suo nimirum captu) prorsus effici videat: postquam vim semel naturæ factam intelligit, imaginationi alas addit; remque magis et minus recipere vix putat; quare maximarum rerum sibi adeptionem spondet, non videns esse subjecta certi cujusdam et fere definiti generis, in quibus magia et superstitio per omnes nationes et ætates potuerit et luserit. Mechanicus autem, si ei contigerit jam pridem inventa subtilius polire, vel ornare elegantius; aut, quæ separatim observaverit, componere et simul repræsentare; aut res cum usu rerum commodius et felicius copulare: aut opus majore, aut etiam minore, quam fieri consuevit, mole et volumine exhibere, se demum inter rerum inventores numerat. Itaque visum est ei, homines rerum et artium novarum inventionem, ut conatum inanem et suspectum, fastidire; vel credere, exstare quidem inventa nobilia, sed inter paucos summo silentio et religione quadam cohiberi: vel huc descendere, ut minores istas industrias et inventorum additamenta pro novis inventis æstiment. Quæ omnia eo redeunt, ut animos hominum a legitimo et constanti labore, et a nobilibus et genere humano dignis inventorum pensis avertant.

Cogitavit et illud; homines cum operum varietatem et pulcherrimum apparatum, quæ per artes mechanicas ad cultum humanum congesta sunt, oculis subjiciunt, eo inclinare, ut potius ad opulentiæ humanæ admirationem, quam ad inopiæ sensum accedant; minime videntes, primitivas hominis observationes et naturæ operationes, quæ animæ aut primi motus instar, ad omnem illam varietatem sint, nec multas nec alte petitas esse: cætera ad patientiam hominum et subtilem et ordinatum manus vel in-

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strumentorum motum pertinere: atque in hac parte officinam cum bibliotheca mire congruere, quæ et ipsa tantam librorum varietatem ostentet, in quibus si diligentius introspicias, nil aliud, quam ejusdem rei infinitas repetitiones, reperias, tractandi modis et structura quadam novas, inventione præoccupatas. Itaque visum est ei, opinionem copiæ inter causas inopiæ poni: et tum opera, tum doctrinas, ad intuitum numerosa, ad examen pauca esse.

Cogitavit et illud; eas, quas habemus, doctrinas ea ambitione et affectatione proponi, atque in eum modum efformatas ac veluti personatas in conspectum venire, ac si singulæ artes omni ex parte perfectæ essent, et ad exitum perductæ. Hujusmodi enim methodis, et iis partitionibus tradi, quæ omnia prorsus, quæ in illud subjectum cadere possunt, tractata complecti et concludere videantur. Atque licet membra illa male impleta, et quod ad vividum aliquem rerum succum attinet, destituta sint: totius tamen cujusdam formam et rationem præ se ferre, eoque rem perduci, ut pauca quædam, neque illa ex optimo delectu, recepta auctorum scripta pro integris ipsis et propriis artibus habeantur. Cum tamen primi et antiquissimi veritatis inquisitores, meliore fide ac eventu, scientiam, quam ex rerum contemplatione decerpere, et in usum condere statuebant, in aphorismos fortasse, sive breves, easdemque sparsas, nec methodis revinctas, sententias conjicere solerent: quæ cum et rerum inventarum nuda simulachra, et rerum non inventarum manifesta spatia et vacua indicarent, minus fallebant: atque hominum ingenia et meditationes ad judicandum et ad inveniendum simul excitabant. At nunc scientias iis modis exhiberi, qui fidem usurpent, non judicium solicitent, et auctoritate tristi lætis inventionum conatibus intercedant: adeo ut omnis successio et devolutio disciplinarum, personas magistri et auditoris complectatur, non inventoris et ejus qui inventis addat: unde necessario evenire, ut scientiæ suis hæreant vestigiis, nec loco omnino moveantur. Quod et per multa jam secula usu venit, eousque ut non solum assertio maneat assertio, sed etiam quæstio maneat quæstio et eodem plane statu alatur. Quare visum est ei, columnas non ultra progrediendi magnopere fixas esse et quasi fatales, et mirum minime esse id haud obtineri, cujus adipiscendi homines nec spe nec desiderio teneantur.

Cogitavit et illud; quæ de hominum tum desperatione, tum fastu, dicta sunt, quod ad plerosque scientiarum sectatores attinet, nimis alte petita esse; turbam enim longe maximam prorsus aliud agere. Doctrinam siquidem vel animi et delectationis causa petere, vel ad usum et emolumentum professorium, vel etiam ad ornamentum et existimationis suæ adminiculum: quæ si ut finis scientiarum proponantur, tantum abest ut homines id velint, ut ipsa doctrinarum massa augmentum sumat, ut ex ea, quæ præsto est, massa nil amplius quærant, quam quantum ad usum destinatum vertere et decoquere possint. Si quis autem in tanta multitudine scientiam affectu ingenuo et propter se expetat, invenietur tamen rerum potius varietatem, quam veritatem, aucupari. Quod si et veritatis sit inquisitor severior, illa ipsa tamen veritas erit hujusmodi, quæ res jam in lucem proditas subtilius explicet, non quæ novam lucem excitet. Sin adhuc studium cujuspiam in tantum expandatur, ut et novam lucem ambiat: eam scilicet lucem adamabit, quæ ex longinquo contemplationes speciosas ostentet, non quæ ex propinquo opera et inventa nobilia demonstret. Quare visum est ei, eodem rursus referri, scilicet mirum non utique esse, curriculum non confici, cum homines ad hujusmodi minora deflectant: multo magis cum nec ipsa meta adhuc ulli, quod sciat, mortalium posita sit et defixa. Metam autem non aliam esse, quam ut genus humanum novis operibus et potestatibus continuo dotetur.

Cogitavit et illud; inter ista scientiarum detrimenta, naturalis philosophiæ sortem præ omnibus minus æquam esse: ut quæ a laboribus hominum leviter occupata, facile deserta, nec majorem in modum culta et subacta sit. Postquam enim fides Christiana adolevit et recepta est, longe maximam ingeniorum partem ad theologiam se contulisse, hominumque ex hac parte studio et amplissima præmia proposita, et omnis generis adjumenta copiosissime subministrata esse. Quin et ævo superiore potissimas philosophorum commentationes in morali philosophia (quæ ethnicis magna ex parte vice theologiæ erat) consumptas esse: utrisque autem temporibus summa ingenia haud infrequenti numero ad res civiles se applicasse, præsertim durante magnitudine Romana, quæ ob imperii amplitudinem plurimorum operis indigebat. Eam ipsam vero ætatem, qua naturalis philosophia apud Græcos maxime florere visa est, fuisse particulam temporis minime diurnam: ac subinde contradictionibus ac novorum placitorum ambitione corruptam et inutilem redditam. Ab illis autem usque temporibus neminem prorsus nominari, qui naturalem philosophiam ex professo colat, nec ejus inquisitioni immoriatur, adeo ut virum vacuum et integrum hæc scientia jamdiu non occupaverit, nisi quis forte monachi alicujus in cellula, aut nobilis in villula lucubrantis exemplum adduxerit, quod et rarissimum reperietur. Sed factum deinceps instar transitus cujusdam et pontisterniі ad alia, magnamque istam scientiarum matrem in ancillam mutatam esse, quæ medicinæ aut mathematicis operibus ministret, aut adolescentium immatura ingenia lavet et imbuat, veluti tinctura quadam prima, ut aliam rursus felicius et commodius excipiant. Itaque visum est ei, naturalem philosophiam, incumbentium paucitate, et festinatione, et tyrocinio destitutam jacere. Nec ita multo post visum est ei, hoc ad universum doctrinarum statum summopere pertinere: omnes enim artes et scientias ab hac stirpe revulsas, poliri fortassis aut in usum effingi, sed nil admodum crescere.

Cogitavit et illud; quam molestum ac in omni genere difficilem adversarium nacta sit philosophia naturalis, superstitionem nimirum, et zelum religionis cæcum et immoderatum. Comperit enim ex Græcis nonnullos, qui primum causas naturales fulminis et tempestatum insuetis adhuc hominum auribus proposuerunt, impietatis eo nomine damnatos: nec multo melius exceptos, sed in idem judicium adductos, non capitis sane sed famæ, cosmographos, qui ex certissimis demonstrationibus, quibus nemo hodie sanus contradixerit, formam terræ rotundam tribue-

runt, et ex consequenti Antipodas asserucrunt, accusantibus quibusdam ex antiquis patribus fidei Christianæ. Quin et duriorem (ut nunc sunt res) conditionem sermonum de natura effectam ex temeritate theologorum scholasticorum, et eorum clientelis, qui cum theologiam (satis pro potestate) in ordinem redegerint, et in artis fabricam effinxerint; hoc insuper ausi sunt, ut contentiosam et tumultuariam Aristotelis philosophiam corpori religionis immiscuerint. Eodem spectare etiam, quod hoc seculo haud alias opiniones et disputationes magis secundis ventis ferri reperies, quam eorum, qui theologiæ et philosophiæ, id est, fidem et sensus, conjugium veluti legitimum, multa pompa et solennitate celebrant, et grata rerum varietate animos hominum permulcentes, interim divina et humana inauspicato permiscent. Revera autem si quis diligentius animum advertat, non minus periculi naturali philosophiæ ex istiusmodi fallaci et iniquo fœdere, quam ex apertis inimicitiis, imminere. Tali enim fœdere et societate recepta in philosophia tantum comprehendi: aucta autem vel addita, vel in melius mutata, etiam severius et pertinacius excludi. Denique versus incrementa, et novas veluti oras et regiones philosophiæ, omnia ex parte religionis, pravarum suspicionum et impotentis fastidii plena esse. Alios siquidem simplicius subvereri, ne forte altior in naturam inquisitio ultra datum et concessum sobrietatis terminum penetret, traducentes non recte ea, quæ de divinis mysteriis dicuntur, quorum multa sub sigillo divino clausa manent, ad occulta naturæ, quæ nullo interdicto separantur: alios callidius conjicere, si media ignorentur, singula ad manum et virgulam divinam (quod religionis, ut putant, maxime intersit) facilius referri; quod nil alind est, quam Deo per mendacium gratificari velle. Alios ab exemplo metuere, ne motus et mutationes philosophiæ in religionem incurrant et desinant. Alios denique solicitos videri, ne in naturæ inquisitione aliquid inveniri possit, quod religionem labefactet. Quæ duo cogitata incredulitatem quandam sapiunt et sapientiam animalem; posterius autem absque impietate ne in dubitationem aut suspicionem venire potest. Quare satis constabat, in hujusmodi opinionibus multum infirmitatis, quin et invidiæ et fermenti non parum, subesse. Naturalem enim philosophiam, post verbum Dei, certissimam superstitionis medicinam, eandem probatissimum fidei alimentum esse. Itaque merito religioni tanquam fidissimam et acceptissimam ancillam attribui: cum altera voluntatem Dei, altera potestatem manifestet. Neque errasse eum, qui dixerit: "Erratis nescientes Scripturas et potestatem Dei," informationem de voluntate, et meditationem de potestate, nexu individuo copulantem. Quæ licet verissima sint, nihilominus illud manet, in potentissimis naturalis philosophiæ impedimentis, ea, quæ de zelo imperito et superstitione dicta sunt, citra controversiam numerari.

Cogitavit et illud; in moribus et institutis academiarum, collegiorum, et similium conventuum, quæ ad doctorum hominum sedes et operas mutuas destinata sunt, omnia progressui scientiarum in ulterius adversa inveniri: frequentiam enim multo maximam professoriam primo, ac subinde meritoriam esse. Lectiones autem et exercitia ita disposita, ut aliud a consuetis ne facile cuiquam in mentem veniat cogitare. Sin autem alicui inquisitionis et judicii libertate uti contigerit, is se in magna solitudine versari statim sentiet. Sin et hoc toleraverit, tamen in capessenda fortuna industriam hanc et magnanimitatem sibi non levi impedimento fore experietur. Studia enim hominum in ejusmodi locis in quorundam auctorum scripta veluti relegata esse; a quibus si quis dissentiat, aut controversiam moveat, continuo ut homo turbidus et rerum novarum cupidus corripitur; cum tamen (si quis verus æstimator sit) magnum discrimen inter rerum civilium ac artium administrationem reperiatur. Non enim idem periculum a nova luce ac a novo motu instare. Verum in rebus civilibus motum etiam in melius suspectum esse ob perturbationem, cum civilia auctoritate, consensu, fama, opinione, non demonstratione et veritate, constent. In artibus autem et scientiis, tanquam in metalli fodinis, omnia novis operibus et ulterioribus progressibus strepere debere. Atque recta ratione rem se ita habere. In vita autem visum est ei, doctrinarum politiam et administrationem, quæ in usu est, scientiarum augmenta et propaginem durissime premere et cohibere.

Cogitavit et illud; etiam in opinione hominum et sensu communi, multa ubique occurrere, quæ novas scientiarum accessiones libero aditu prohibeant. Maximam enim partem hominum, præsentibus non æquam, in antiquitatem propendere, ac credere, si nobis, qui nunc vivimus, ea sors obvenisset, ut quæ ab antiquis quæsita et inventa sunt, primi tentaremus, nos eorum pensa longo intervallo non fuisse æquaturos: credere similiter, si quis etiam nunc, ingenio suo confisus, inquisitionem de integro suscipere affectet, hunc hujusce rei eventum fore, ut aut in ipsa incidat, quæ ab antiquitate probata sunt; ant sane in alia, quæ, ab antiquitate jampridem judicata et rejecta, in oblivionem merito cessere. Alios, spreta omnino gente et facultate humana, utriusque temporis, sive antiqui sive novi, in opinionem labi curiosam et superstitiosam; existimantes, scientiarum primordia a spiritibus manasse, et ab eorum dignatione et consortio similiter nova inventa anctoramentum habere posse. Alios, opinione magis sobria et severa, sed diffidentia graviore, de auctiore scientiarum statu plane desperare, naturæ obscuritatem, brevitatem vitæ, sensuum fallacias, judicii infirmitatem, et experimentorum difficultates et immensas varietates reputando. Itaque hujusmodi spei excessus, quæ majora, quam quæ habemus, spondeat, esse impotentis animi et immaturi, atque læta scilicet principia, media ardua, extrema confusa habere, nec minorem desperationem præmii, quam facti, esse: scientias siquidem in magnis ingeniis proculdubio innasci et augeri; pretia autem et æstimationes scientiarum penes populum aut principes viros, aut alios mediocriter doctos, esse. Itaque non eorundem propositionem scientiarum et judicium esse: unde fieri, ut ea tantum inventa vigeant, quæ populari judicio et sensui communi accommodata sunt: ut in Democriti opinione de atomis usu venit, quæ, quia paulo remotior erat, lusu excipiebatur. Itaque altiores contemplationes naturæ, quas, fere religionis

instar, duras sensibus hominum accedere necesse est, oriri aliquando posse, sed fere non multo post (nisi evidenti et excellenti utilitate demonstrentur et commendentur, quod huc usque factum non est) opinionum vulgarium ventis agitari et exstingui; adeo ut tempus, tanquam fluvius, levia et inflata vehere, gravia et solida mergere consueverit. Visum est ei itaque impedimenta melioris scientiarum status non tantum externa et adventitia, sed et innata et ex ipsis sensibus hausta esse.

Cogitavit et illud; etiam verborum naturam vagam et male terminatam intellectui hominum illudere, et fere vim facere: verba enim certa tanquam numismata esse, quæ vulgi imaginem et principatum repræsentent: illa siquidem secundum populares notiones et rerum acceptiones (quæ maxima ex parte erroneæ sunt et confusissimæ) omnia componere et dividere; ut etiam infantes, cum loqui discunt, infelicem errorum cabalam haurire et imbibere cogantur. Ac licet sapientiores et doctiores se variis artibus ab hac servitute vindicare conentur, nova vocabula fingendo, quod durum, et definitiones interponendo, quod molestum est, nullis tamen viribus jugum excutere posse, quin infinitæ etiam in acutissimis disputationibus controversiæ de verbis moveantur, et quod multo deterius est, istæ ipsæ pravæ verborum signaturæ etiam in mentem radios suos et impressiones reflectant; nec tantum in sermone molestæ, sed etiam judicio et intellectui infestæ sunt. Itaque visum est ei, inter internas causas errorum hanc ipsam ut gravem sane et innoxiam ponere.

Cogitavit et illud; præter communes scientiarum et doctrinarum difficultates, philosophiam naturalem, præsertim activam et operativam, etiam alia propria habere præjudicia et impedimenta. Non parvam enim existimationis jacturam et fidei fecisse per quosdam procuratores suos, leves et vanos, qui partim ex credulitate, partim ex impostura, humanum genus promissis onerarunt, vitæ prolongationem, senectutis retardationem, dolorum levationem, naturalium defectuum reparationem, sensuum deceptiones, affectuum ligationes et incitationes, intellectualium facultatum illuminationes, exaltationes, substantiarum transmutationes, motuum ad libitum multiplicationes, aëris impressiones et alterationes, rerum futurarum divinationes, remotarum repræsentationes, occultarum revelationes, et alia complura pollicitando. Verum de istis largitoribus opinari, non multum aberraturum, qui istiusmodi judicium fecerit. Tantum nimirum interesse inter horum vanitates et veras artes in philosophia, quantum intersit inter pugnas Julii Cæsaris aut Alexandri; et rursus Amadisii ex Gallia, aut Arthuri ex Britannia, in historia. Constat enim clarissimos illos imperatores majora revera præstitisse, quam umbratiles isti heroës fecisse fingantur; sed modis et viis actionum minime fabulosis et prodigiosis. Itaque æquum non esse fidem veræ memoriæ derogare, quia illa a fabulis quandoque læsa et violata sit. Nam Ixionem e nube Centauros, nec ideo minus Jovem e vera Junone Heben et Vulcanum, virtutes scilicet admirandas et divinas, naturæ et artis, geniisse. Quæ licet vera comperiantur, et homines absque rerum discrimine incredulos esse summæ sit imperitiæ: visum tamen est ei, veritatis aditum per hujusmodi commenta interclusum aut certe arctatum jampridem esse, et vanitatis excessus etiam nunc omnem magnanimitatem destruere.

Cogitavit et illud; reperiri in animo humano inclinationem quandam a natura insitam, et hominum opinione et disciplina nonnulla corroboratam, quæ naturalis philosophiæ, activæ nimirum et operativæ, progressus remorata sit et averterit. Eam esse opinionem sive æstimationem humidam et damnosam, minui nempe majestatem mentis humanæ, si in experimentis et rebus particularibus, sensui subjectis, et in materia terminatis, diu ac multum versetur: præsertim cum hujusmodi res ad inquirendum laboriosæ, ad meditandum ignobiles, ad dicendum asperæ, ad practicam illiberales, numero infinitæ, et subtilitate pusillæ videri soleant, et ob hujusmodi conditiones gloriæ artium minus sint accommodatæ. Quam opinionem, sive animi dispositionem, vires maximas sumpsisse ex illa altera opinione elata et commentitia; qua veritas humanæ mentis veluti indigena, nec aliunde commigrans; et sensus intellectum magis excitare, quam informare asserebatur. Neque tamen errorem hunc, et mentis (si verum nomen quæratur) alienationem ab iis ulla ex parte correctam, qui sensui debitas, id est, primas partes tribuerunt. Quin et hos quoque exemplo et facto suo, relicta prorsus naturali historia, et mundana perambulatione, omnia in ingenii agitatione posuisse, et inter opacissima mentis idola, sub specioso contemplationis et rationalium nomine, perpetuo volutasse. Quare visum est ei, istud rerum particularium repudium et divortium omnia in familia humana turbasse.

Cogitavit et illud; non tantum ex iis, quæ obstant, conjecturam capiendam; fieri enim posse, ut humani generis fortuna istas difficultates, et vincula perfregerit et superaverit. Itaque illud videndum ac penitus introspiciendum, qualis sit ea philosophia, quæ recepta sit, aut alia quæpiam ex antiquis, quæ instar tabulæ naufragii ad littora nostra impulsa sit. Atque invenit, philosophiam naturalem, quam a Græcis accepimus, pueritiam quandam scientiæ censeri: atque habere id quod proprium puerorum est, ut ad garriendum prompta, ad generandum inhabilis et immatura sit. Hujus autem philosophiæ jam consensu principem Aristotelem, intacta fere ac illibata natura, in communibus notionibus, atque earum inter se comparatione, collisione, et reductione, inutiliter versatum esse. Neque sane quicquam solidi ab eo sperari, qui etiam mundum e categoriis effecerit. Parum enim interesse, utrum quis materiam, formam, et privationem, an substantiam, qualitatem, et relationem principia rerum posuerit: verum istis sermonibus supersederi oportere. Nam et justam confutationum instituere (cum neque de principiis, nec de demonstrationum modis conveniat) immemoris esse. Et rursus hominem, tantam auctoritatem et fere dictaturam in philosophia adeptum, per satiram præstringere, levius pro dignitate sermonis instituti, et tamen superbum fore. Illum sane dialecticis rationibus, utpote a se (quod ipse licentius gloriatur) oriundis, naturalem philosophiam corru-

pisse. Verum ut illum mittamus, Platonem virum sine dubio altioris ingenii fuisse, ut qui et formarum cognitionem ambiret, et inductione per omnia (non ad principia tantum) uteretur: sed inutili utrobique ratione, cum inductiones vagas, formas abstractas prensaret et reciperet. Atque hujus philosophi si quis attentius et scripta et mores consideret, eum de philosophia naturali non admodum solicitum fuisse reperiet, nisi quatenus ad philosophi nomen et celebritatem tuendam, vel ad majestatem quandam moralibus et civilibus doctrinis addendam et adspergendam sufficeret. Eundem naturam non minus theologia, quam Aristotelem dialectica, inficere: et, si verum dicendum est, tam prope ad poëtæ, quam ille ad sophistæ partes accedere. Atque horum placita ex ipsis fontibus haurire licere, cum opera eorum extent. Reliquorum vero, Pythagoræ, Empedoclis, Heracliti, Anaxagoræ, Democriti, Parmenidis, Xenophanis, et aliorum, diversam rationem esse, quod illorum opiniones per internuntios quosdam, et famas, et fragmenta solummodo habeamus; atque idcirco majore inquisitione, ac majore etiam judicii integritate (quæ sortis iniquitatem levet) opus esse. Sed tamen cum summa diligentia ac cura omnem de illis opinionibus auram captasse; ut quicquid de illis, vel dum ab Aristotele confutantur, vel dum a Platone, vel Cicerone citantur: vel in Plutarchi fasciculo, vel in Laërtii vitis, vel in Lucretii poëmate, vel alicubi in quavis alia sparsa memoria et mentione inveniri possit, evolvisse: et cum fide et judicio librato examinasse. Ac primo sane dubium non esse, quin si opiniones eorum in propriis exstarent operibus, majorem firmitudinem habituræ fuissent, cum theoriarum vires in apta et se mutuo sustinente partium harmonia, et quadam in orbem demonstratione consistant, ideoque per partes traditæ infirmæ sint: quare non contemptim de illis judicium fecisse. Reperisse etiam inter placita tam varia, haud pauca in observatione naturæ, et causarum assignatione non indiligenter notata; alios autem in aliis (ut fere fieri solet) feliciores fuisse. Tantummodo Pythagoræ inventa et placita (licet numeri ejus quiddam physicum innuant) talia majore ex parte fuisse, quæ ad ordinem potius quendam religiosorum fundandum, quam ad scholam in philosophia aperiendam, pertinerent; quod et eventus comprobavit. Nam eandem disciplinam plus in hæresi Manichæorum et superstitione Mahumeti, quam apud philosophos, valuisse. Reliquos vero physicos certe fuisse; atque ex iis nonnullos, qui Aristotele longe et altius et acutius in naturam penetraverint. Atque illum scilicet Ottomannorum more in fratribus trucidandis occupatum fuisse; quod et ei ex voto successit. Verum et de Aristotele, et de reliquis istis Græcis, non dissimile judicium fecit, esse nimirum hujusmodi placita ac theorias veluti diversa diversarum fabularum in theatro argumenta, in quandam verisimilitudinem, alia elegantius, alia negligentius, aut crassius conficta; atque habere quod fabularum proprium est, ut veris narrationibus concinniora et commodiora videantur. Neque in istis tantum exhibitis et publicatis theoriis, humani ingenii peregrinationes et errores se sistere aut finiri potuisse. Nisi enim mores hominum et affectus, et rerum civilium inclinationes, hujusmodi novitatibus (etiam in contemplativis) adversæ et infensæ exstitissent, dubium minime esse, quin et aliæ multæ in naturali philosophia sectæ introductæ fuissent. Quemadmodum enim in astronomicis, et iis quibus terram rotari placet, et iis qui per eccentricos et epicyclos motus expediunt, eorum, quæ in cœlis sub sensu apparent, patrocinia, et advocationes æquæ et ancipites sunt; quin et tabularum calculi utrisque respondent: eodem modo et multo etiam facilius esse in naturali philosophia complures theorias excogitare, longe inter se ad invicem differentes, sed tamen singulis sibi constantes, et instantiarum vulgarium, quæ in ejusmodi quæstionibus judicia exercere solent, suffragatione abutentes, atque in diversa trahentes. Neque enim defuisse, qui nostra et patrum ætate novas philosophiæ naturalis fabricas meditati sunt. Nam Telesium nostra memoria scenam conscendisse, et novam fabulam egisse, magis argumento probabilem, quam plausu celebrem: et Fracastorium non ita pridem, licet novam sectam non elegerit, tamen libertate judicii et inquisitionis honestissime usum esse: Cardanum etiam non minus ausum, sed leviorem. Quin et nuper Gilbertum nostratem, cum naturam magnetis laboriosissime et magna judicii firmitudine et constantia, necnon experimentorum magno comitatu et fere agmine, perscrutatus esset, statim novæ in philosophia naturali sectæ imminere cœpisse: nec Xenophanis nomen in ludibrium versum expavisse, in cujus sententiam inclinabat. Hos itaque, et si qui sunt, aut erunt, horum similes, antiquorum turbæ aggregandos, unam enim eandemque omnium rationem haberi. Esse nimirum homines secundum pauca pronuntiantes, et naturam leviter attingentes, nec ita se illi immiscentes, ut aut contemplationum veritatem, aut operum utilitatem assequi possint. Credere enim ex tot philosophiis, per tot annorum spatia elaboratis et cultis, ne unum quidem experimentum adduci posse, quod ad hominum statum levandum aut locupletandum spectet, et hujusmodi speculationibus vere acceptum referri possit. Quin contra, Aristotelis de quatuor elementis commentum, cui ipse potius auctoritatem quam principium dedit (quod avide a medicis acceptum, quatuor complexionum, quatuor humorum, et quatuor primarum qualitatum conjugationes post se traxit) tanquam malignum aliquod et infaustum sidus, infinitam et medicinæ, necnon compluribus mechanicis rebus, sterilitatem attulisse; dum homines per hujusmodi concinnitates et compendiosas inceptias sibi satisfieri patientes, nil amplius curant. Quæstionum interim et controversiarum turbas circa hujusmodi philosophias undique sonare et volitare; adeo ut fabula illa de Scylla in eas ad vivum competere videatur, quæ virginis os et vultum extulit, ad uterum vero monstra latrantia succingebantur et adhærebant. Ita habere et istas doctrinas quædam primo aspectu speciosa, sed cum ad partes generationis ventum est, ut fructum ex se edant, tum nil præter lites et inquietas disputationes inveniri, quæ partus vicem obtineant. Atque illud interim notandum, quæ de placitorum rejectione dicta sunt, opinionibus tantum, non ingeniis auc-

torum aut laboribus derogare. Quanto enim quis ingenio et studio maxime valeat, eundem, si naturæ lucem et historiam, et rerum particularium evidentiam deserat, tanto magis in obscuriores et magis perplexos phantasiarum et idolorum recessus et quasi specus se detrudere et involvere. Neque insuper, generales philosophiarum theorias argui, ut particulares et inferiorum causarum assignationes, quæ in hujusmodi philosophorum operibus reddi et quæri solent, probentur: verum et has nihilo illis meliores esse, non tantum quod ab illis pendeant, sed quod et ipsæ nullam severitatem inquisitionis præ se ferant, ad paulo notiora et fere obvia deducentes, in quibus mens humana leviter acquiescat et sibi complaceat, verum ad interiora naturæ minime penetrantes. Atque hoc vitii (quod omnium instar est) semper habentes, ut experimenta, et effecta jam nota, cohærentia quadam et veluti reticulo connectant, ad eorum, quæ nota sunt, justam mensuram facto: sed neutiquam causam aliquam aut regulam demonstrent, quæ nova nec prius cognita effecta aut experimenta designet. Atque post has philosophiarum oras peragratas, se undique circumspicientem etiam ad antiquitatis penetralia oculos conjecisse, veluti versus tractum quendam nubilosum et obscurum. Atque scire se, si minus sincera fide agere vellet, non difficile esse hominibus persuadere, apud antiquos sapientes, diu ante Græcorum tempora, scientiam de natura, majore virtute, sed majore etiam fortasse silentio, floruisse: atque ideo solennius fore ea, quæ jam afferuntur, ad illa referre; ut novi homines solent, qui nobilitatem antiquæ alicujus prosapiæ per genealogiarum rumores et conjecturas sibi affingunt: sed se, rerum evidentia fretum, omnis impostura conditionem recusasse; et qualemcunque ipse opinionem de illis seculis habeat, tamen ad id quod agitur non plus interesse putare, utrum quæ jam inveniuntur, antiquis cognita, et per rerum vicissitudines occidentia et orientia sint, quam hominibus curæ esse debere, utrum novus orbis fuerit insula illa Atlantis, et veteri mundo cognita, an nunc primum reperta. Rerum enim inventionem a naturæ luce petendam, non ab antiquitatis tenebris repetendam esse. Interea venire alicui in mentem posse, de chemistarum arte sive philosophia taceri: quod se honoris causa fecisse; quia cum illis philosophiis, quæ prorsus operum effœtæ sunt, conjungere noluerit; cum ipsa inventa nobilia non pauca exhibuerit et donarit. Verum fabulam illam in hanc artem non male congruere, de sene, qui filiis aurum in vinea defossum (nec satis scire quo loco) legaverit; unde illos ad vineam diligenter fodiendam versos esse, et aurum quidem nullum repertum, sed vindemiam ea cultura factam uberiorem. Simili modo et Chemiæ filios, dum aurum (sive vere sive secus) defossum invenire satagunt, movendo et experiendo haud parvo proventui hominibus et utilitati fuisse. Sed illorum inventa non alio modo, nec ratione aliqua meliore, quam artium mechanicarum principia et incrementa cœpisse, id est, per experientiam meram. Nam philosophiam et speculativam eorum, rem minus sanam esse; et illis, de quibus locuti jam sumus, philosophiarum fabulis duriorem. Utcunque enim principiorum trias inventum non inutile fuerit, sed rebus aliqua ex parte finitimum: tamen maxima ex parte eos, paucis distillationum experimentis assuetos, omnia in philosophia ad separationes et liberationes retulisse, verarum alterationum oblitos. Illam autem opinionis fabricam, qua veluti basi eorum philosophia nititur, nempe esse quatuor rerum matrices sive elementa, in quibus semina et species rerum fœtus suos absolvant, atque hæc quadriformia esse, pro differentia nimirum cujusque elementi, adeo ut in cœlo, aëre, aqua, terra, nihil inveniatur, quod non habeat in tribus reliquis conjugatum aliquod et parellelum: huic certe phantasticæ rerum naturalium phalangi peritum naturæ contemplatorem vix inter somnia sua locum daturum. Neque dissimiles esse rerum harmonias, quæ naturalis Magiæ cultoribus placuerunt; qui et ipsi per rerum sympathias et antipathias omnia expediunt; et ex otiosis et supinissimis conjecturis, rebus virtutes et operationes admirabiles affingunt. Verum et iis se parcere, quod inter tot fabulas, tamen opera aliquando exhibeant: licet ea fere hujusmodi sint, ut ad admirationem et novitatem, non ad fructum et utilitatem accommodata sint. Sed tamen et novitatis hunc usum plerumque esse, ut sinus naturæ nonnihil excutiat, et luce saltem, si minus actu, juvet. Quare visum est ei, neque in Græcorum, neque in novorum hominum placitis, neque in alchemiæ aut naturalis magiæ traditionibus aliquid inveniri, quod ad opes humanas majorem in modum augendas spectet. Itaque hæc omnia vel oblivioni devovenda esse, vel popularibus studiis permittenda, dum veri scientiarum filii alio cursum dirigant.

Cogitavit et illud; etiam de demonstrationum modis videndum: demonstrationes enim potentia quadam philosophiam esse: atque prout illæ aut rectæ aut pravæ sint, inde doctrinas perfectas aut imperfectas sequi, probabile esse. Comperit autem, demonstrationes, quæ in usu sunt, nec plenas, nec fidas esse. Neque tamen sensibus derogandum, quod quidam fecerunt. Sensuum enim errores in singulis ad summam scientiarum non multum facere; quin et ab intellectu, fidelius informato, corrigi posse. Sed intellectum ipsum, natura sola fretum, sine arte et disciplina, rebus imparem et minorem, sine cunctatione pronuntiandum. Neque enim aut ita capacem esse, ut omnigenam particularium supellectilem ad informationem necessariam recipiat et disponat, neque ita vacuum et purum, ut rerum imagines veras et nativas, absque phantasia et tinctura admittat. Quin certissimum esse, tum generaliter mentem humanam instar speculi inæqualis esse, quæ rerum radios secundum propriæ sectionis angulos, et non superficie plana, suscipiat et reflectat: tum etiam cuique ex educatione, studiis, et natura sua, vim quandam seductoriam, et quasi dæmonem familiarem adesse, qui mentem variis et vanis spectris ludat et turbet. Neque propterea ad opinionem Acatalepsiæ deveniendum. Cnilibet enim manifestum esse, nulla manus constantia, nec oculorum judicio maxime exquisito, lineam rectam, vel circulum perfectum describi posse: attamen admota regula, aut circino circumducto, rem præsto esse. Atqui in mechanicis manus hominum nudas ad quantula opera sufficere: easdem vi et ope instrumentorum vastis-

sima quæque ac rursus subtilissima vincere. Sequi igitur ut ad artem confugiendum, et de demonstratione, quæ per artem regitur, videndum sit. Atque de syllogismo, qui Aristoteli oraculi loco est, paucis sententiam claudendam. Rem esse nimirum in doctrinis, quæ in opinionibus hominum positæ sunt, veluti moralibus et politicis, utilem et intellectui manum quandam auxiliarem; rerum vero naturalium subtilitati et obscuritati imparem et incompetentem. Nam syllogismum certe ex propositionibus constare, propositiones ex verbis, verba notionum sive animi conceptuum testes et signacula esse. Quamobrem notiones ipsæ, quæ verborum animæ sunt, si vagæ, nesciæ, nec satis definitæ fuerint (quod in naturalibus longe maxima ex parte fieri consuevit) omnia ruere. Restare inductionem, tanquam ultimum et unicum rebus subsidium et perfugium: neque immerito in ea spes sitas esse, ut quæ opera laboriosa et fida rerum suffragia colligere, et ad intellectum perferre possit. Verum et hujus nomen tantummodo notum esse; vim et usum homines hactenus latuisse. De inductione enim ita decernendum: in usu ejus atque etiam forma homines duplicitер peccasse; primo quod moræ impatientes et compendia viarum undique lustrantes, et quædam in certo ponere, circa quæ, tanquam circa polos, disputationes verterentur, properantes, cum tantum ad generalia scientiarum principia adhibuerunt, media per syllogismorum derivationes expedire temere sperantes. Rursus, quod de syllogismo accurate, de hac autem demonstratione cursim et negligenter inquirentes, formam ejusdem meditati sunt admodum simplicem et plane puerilem, quæ per enumerationem tantum procedat, atque propterea precario non necessario concludat. Itaque cum circa demonstrationes talia cogitet, mirum nemini videri posse, si in philosophia naturali sibi cum aliis, sive veteribus sive novis, non conveniat. Neque enim fieri posse (quod ille per jocum dixit) ut idem sentiant qui aquam et qui vinum bibunt. Illos enim liquorem imbibere crudum et ex intellectu vel sponte manantem, vel industria quadam haustum: se autem liquorem parare et propinare ex infinitis uvis, iisque maturis et tempestivis, et per racemos decerptis et collectis, et subinde in torculari pressis, et in vase repurgatis, et clarificatis, constantem, qui tamen ab omni inebriandi qualitate rectificetur, cum nil prorsus phantasiarum vaporibus tribuat aut relinquat. Quare visum est ei, philosophias illas, quas jamdudum diximus, non tantum propter operum sterilitatem, sed etiam propter demonstrationum infirmitatem et fallacias rejici, cum non solum a rebus desertæ, sed et ab auxiliis, quæ sibi paraverunt, destitutæ ne proditæ sint.

Cogitavit et illud; etiam de inveniendi modis, qui in usu sunt, separatim videndum, si modo aliqui sint. In hac enim parte non tam errores et devia, quam solitudinem et vacua inveniri; quod stupore quodam animum perculerit. Non ulli mortalium cordi aut curæ fuisse, ut ingenii et intellectus humani vires ad artes et scientias inveniendas et promovendas dirigeret, eoque viam muniret: sed omnia vel traditionum caligini, vel argumentorum vestigiis et turbini, vel casus et experientiæ undis et ambagibus permissa esse et permitti. Itaque non sine causa fuisse, quod apud Ægyptios (qui rerum inventores, more apud antiquitatem recepto, consecrare solebant) tot brutorum effigies in templis reperirentur; cum animalia rationis expertia ex æquo fere cum hominibus naturæ operationum inventores fuerint, neque ad hoc homines sua prærogativa admodum usi sunt: sed tamen de iis, quæ fiunt, videndum. Et primo de inveniendi modo simplici et inartificioso, quod hominibus familiare est, id non aliud esse, quam ut is, qui se ad inveniendum aliquid comparat et accingitur, primo quæ ab aliis circa illud dicta sint, inquirat et evolvat: deinde meditationem propriam addat. Verum ut quis vel aliorum fidei se committat, vel spiritum suum solicitet, et fere invocet, ut sibi oracula pandat, rem prorsus sine fundamento esse, sequi inventionem quæ apud dialecticos receepta sit. Eam solummodo nomine tenus, ad id, quod agitur, pertinere. Non enim principiorum et axiomatum esse, ex quibus artes constant, sed tantum eorum, quæ illis consentanea videntur. Dialecticam enim magis curiosos, et importunos, et sibi negotium facessentes, ad fidem et veluti sacramentum cuilibet arti præstandum notissimo responso rejicere. Restare experientiam meram, quæ, si occurrit, casus, si quæsita sit, experimentum nominatur. Atque hanc non aliud quam (quod aiunt) scopas dissolutas esse. Quin et eos, qui in aliqua natura vel operatione per multam et erraticam quandam experimentorum variationem, revelanda et in lucem educenda sedulo occupati sunt, aut attonitos stare, aut vertiginosos circumire, aliquando gestientes, aliquando confusos, atque semper invenire quod ulterius quærant. Neque prorsus aliter fieri posse. Insciam enim et imperitam valde cogitationem esse, alicujus rei naturam in seipsa perscrutandi: eandem enim naturam in aliis latentem, in aliis manifestum et quasi palpabilem esse; atque in illis admirationem, in his ne attentionem quidem movere: veluti eam corporum naturam, quæ separationi resistit, in aquarum bullis rem sane subtilem, et fere ingeniosam videri, quæ hujus rei gratia in pelliculas quasdam in hæmisphærii formam effictas se conjicinat. Eandem in ligno vel lapide non magnopere notari, sed solidi appellatione transmitti. Quare visum est ei, hominibus non tam ignorantiam, quam infelicitatem quandam, imputari, cum a curriculo et via per infortunium aut blandimenta deflexerint, non in ejusdem spatiis minus se strenuos præstiterint.

Cogitavit et illud; finem aliquando desperationi, aut saltem querimoniis imponendum: ac illud potius videndum, an omnino cessandum, et iis, quæ habemus, utendum sit, an aliquid, ut melius res procedant, tentandum et moliendum. Ac primum finis ipsius et propositi meritum et pretium intueri par esse, ut in materia dura et opere arduo major fiat industriæ accensio. Veniebat autem ei in mentem, antiquis seculis, rerum inventoribus (modum excedente hominum affectu et impetu) divinos honores attributos esse. Iis autem, qui in rebus civilibus merebantur, quales erant urbium et imperiorum conditores, legislatores, patriarum a diutinis malis liberatores, tyrannidum debellatores, et his similes, intra heroum modum honores stetisse. Nec immerito

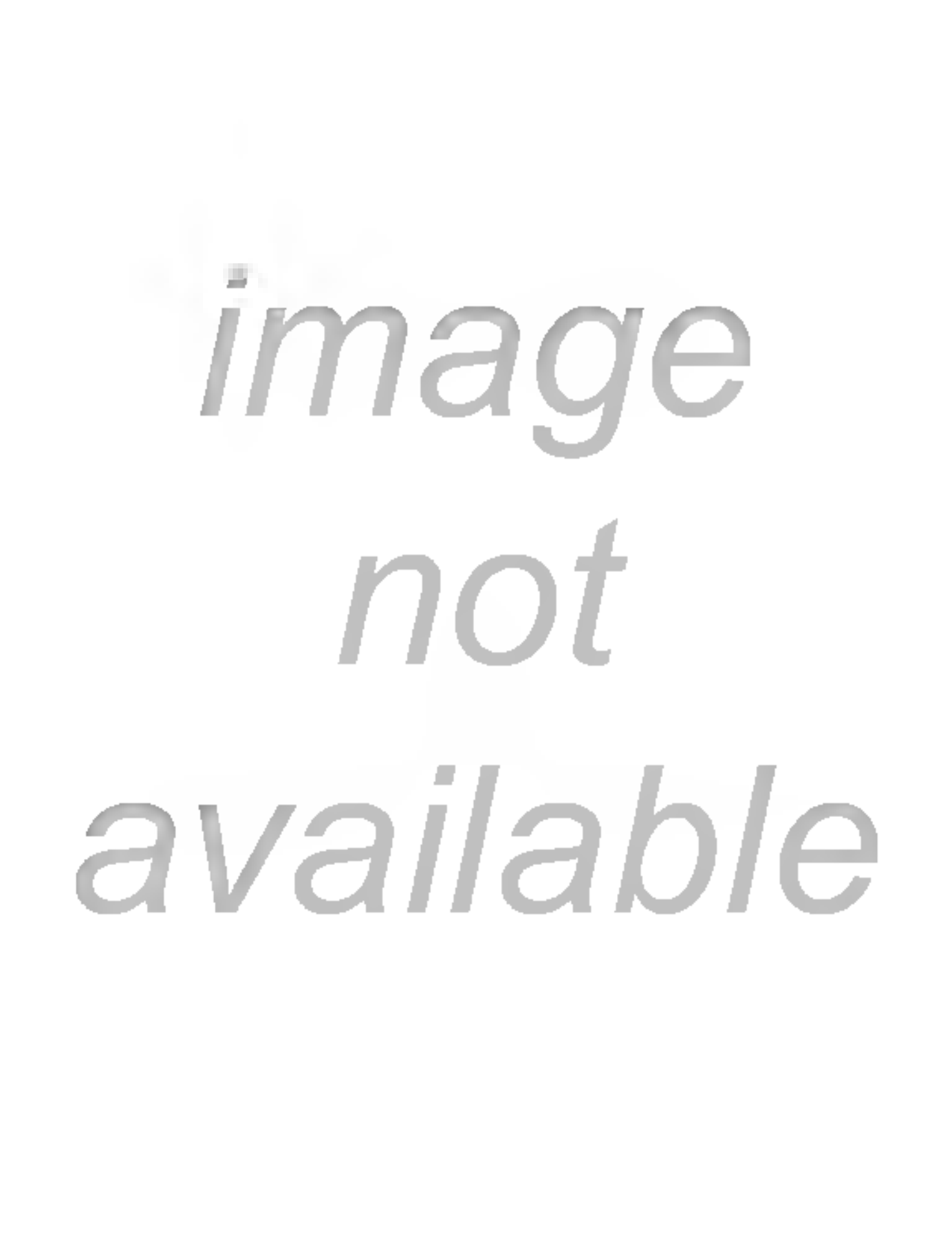
hanc distinctionem priscis illis temporibus invaluisse, cum illorum beneficia ad universum genus humanum, horum ad certas regiones et definitas hominum sedes pertinerent: illa insuper sine vi aut perturbatione humanam vitam bearent: hæc vero non absque tumultu et violentia fere introducta sint. Quod si particularis alicujus inventi utilitas ita homines affecerit, ut eum, qui universum genus humanum unico aliquo beneficio compleeti posset, homine majorem putarent: at multo ecisius inventum esse, quod alia omnia inventa particularia potentia quadam in se contineat, ac animam humanam carceribus liberet, eique vias aperiat, ut ad nova et ulteriora quæque ductu certo et recto penetrare possit. Quemadmodum enim seculis prioribus, cum homines in navigando per stellarum tantum observationes cursum dirigebant, eos veteris sane continentis oras legisse, aut maria aliqua minora et mediterranea trajecisse: necesse autem fuisse, usum acus nauticæ, ut ducem viæ magis fidum, innotuisse, antequam oceanus trajiceretur, et novi orbis regiones detegerentur. Simili prorsus ratione, quæ hucusque in artibus et scientiis hominum inventa sunt, potuisse instinctu, usu, observatione, meditatione, aperiri, utpote sensui propiora. Antequam vero ad remotiora et occultiora naturæ appellere liceat, necessario præcedere, ut melior et perfectior mentis humanæ usus et adoperatio inveniatur. Quare hujusceemodi inventum proculdubio temporis partum nobilissimum, et vere masculum esse. Rursus in Scripturis sacris notabat Salomonem regem, cum imperio, auro, magnificentia operum, satellitio, famulitio, servorum et famulorum pulcherrima descriptione et ordine, classe insuper, nominis claritudine, et summa hominum admiratione floreret, nil horum tamen sibi gloriæ duxisse, verum ita pronuntiasse: " Gloriam Dei esse rem celare, gloriam regis autem rem invenire :" non aliter ac si divina natura innocenti et benevolo puerorum ludo delectaretur, qui ideo se abscondunt ut inveniantur: ac animam humanam sibi collusorem in hoc ludo, pro sua in homines indulgentia et bonitate, optaverit. Atque hanc inveniendi gloriam eam esse, quæ humanam naturam nobilitet, nec interim cuiquam mortalium molesta sit (ut civilia esse solent) nec conscientiam in aliquo remoretur aut mordeat, sed omnino meritum et beneficium sine alicujus pernicie, injuria aut tristitia, deferat. Lucis enim naturam puram et absque maleficio esse; usum ejus perverti, ipsam non pollui. Rursus etiam hominum studia et ambitiones reputans, tria ambitionis genera reperiebat, si modo uni ex iis id nomen imponere fas sit; primam eorum qui ad propriam potentiam in patriis suis amplificandam magna contentione feruntur: atque hanc vulgarem esse et degenerem. Secundam eorum, qui patriæ suæ potentiam inter humanum genus provehere nituntur, quæ sane plus habet dignitatis, cupiditatis haud minus. Tertiam eorum, qui hominis ipsius sive humani generis potentiam et imperium in rerum universitatem instaurare et attollere conantur; quæ reliquis proculdubio et sanior est et augustior. Hominis autem imperium sola scientia constare: tantum enim potest quantum scit: neque ullas vires naturalium causarum catenam perfringere posse: naturam enim non aliter quam parendo vinci. Cogitabat etiam et animo volvebat, qualia sint, quæ de virtute ac vi inventorum tam simplici et mera, quam ea, quæ cum merito et beneficio conjuncta sit, cogitationem subire possunt. Ac illam quidem non in aliis manifestius occurrere, quam in tribus illis inventis, quæ et ipsa antiquis ineognita, et quorum primordia etiam nobis obscura et ingloria sunt; artis nimirum imprimendi, pulveris tormentarii, et acus nauticæ. Hæc enim tria, numero scilicet pauca, ac inventu non multum devia, rerum faciem, et statum in orbe terrarum mutasse: primum in re literaria, secundum in re bellica, tertium in re navali, unde infinitas rerum mutationes secutas esse, attentius intuentibus conspicuas; ut non imperium aliquod, non secta, non stella majorem efficaciam et quasi influxum in res humanas habuisse videatur, quam ista mechanica habuerunt. Quod autem ad merita attinet, id optime percipi, si quis consideret, quantum intersit inter hominum vitam in excultissima aliqua Europæ provincia, et in regione aliqua novæ Indiæ maxime fera et barbara. Tantum sane ut merito hominem homini Deum esse, non solum ex auxilio et beneficio, sed ex status comparatione, dici possit. Atque hoc non solum, non cœlum, non corpora, sed artes præstare. At non novum orbem scientiarum, et novum orbem terrarum in eo conventuros, ut vetera novis sint longe cultiora. Quin contra necesse esse, accessiones artium iis, quæ jam habemus, multo se ostendere præstantiores, ut quæ naturam non leviter inflectere, sed vincere et subigere, et in imis fundamentis concutere possint: fere enim perpetuo fieri, ut quod inventu sit obvium, id opere sit infirmum, eum radices demum rerum virtute valida, ædem situ abditæ sint. Si quis autem sit, cui, in contemplationis amorem et veneration em effuso, ista operum frequens, et eam tanto honore mentio, quiddam asperum et ingratum sonet, is pro certo scint, se propriis desideriis adversari; etenim in natura, opera non tantum vitæ beneficia, sed et veritatis pignora esse. Et quod in religione verissime requiritur, ut fidem quis ex operibus monstret; idem in naturali philosophia competere, ut scientia similiter ex operibus monstretur. Veritatem enim per operum indicationem, magis quam ex argumentatione, aut etiam ex sensu et patefieri et probari. Quare unam eandemque rationem, et conditionis humanæ, et mentis dotandæ esse. Itaque visum est ei, quæ de finis, quem animo metimur et destinamus, dignitate dicta sunt, ea non verbis in majus aucta, sed vero minora esse.

Cogitavit et illud; quæ de finis excellentia dicta sunt, posse votis similia videri. Itaque videndum sedulo, quid spei affulgent, et ex qua parte se ostendat: ac curandum, ne rei optimæ ac pulcherrimæ amore capti, severitatem judicii amittamus aut minuamus. Consentaneum enim esse, prudentiam civilem in hac parte adhibere, quæ ex præscripto diffidit, et de humanis in deterius conjicit. Leviores igitur spei auras rejiciendas: eas autem, quæ aliquid firmitudinis habere videntur, discutiendas. Atque anguria rite capienti, primo illud occurrebat, hoc, quod agitur, ob boni naturam eminentem manifeste a Deo esse: atque in operibus divinis tenuissi-

ma quæque principia eventum trahere. Etiam ex natura temporis bene ominabatur: omnium enim consensu Veritatem Temporis filiam esse. Summæ igitur infirmitatis et pusillanimitatis esse, auctoribus infinita tribuere, auctori autem auctorum, atque omnis auctoritatis, Tempori, jus suum denegare. Neque solum de temporis communi jure, sed et de nostræ ætatis prærogativa bene sperabat. Opinionem enim, quam homines de antiquitate fovent, negligentem esse, ac vix verbo ipsi congruam. Antiquitatem enim proprie dici mundi ipsius senium, aut ætatem provectiorem. Atque revera consentaneum esse, quemadmodum majorem rerum humanarum notitiam et maturius judicium ab homine sene expetamus, quam a juvene, ob experientiam, et eorum quæ vidit, et audivit, et cogitavit multitudinem: eodem modo et a nostra ætate (si vires suas nossct, et experiri et intendere vellet) majora, quam a priscis temporibus, sperari par esse; utpote ætate mundi grandiore, et infinitis experimentis, et observationibus cumulata et aucta. Neque pro nihilo æstimandum, quod per longinquas illas navigationes et peregrinationes, quæ nostra ætate increbuerunt, plurima in natura patuerunt, quæ novam philosophiæ lucem affundere possint. Quin et turbe hominibus esse, si globi materialis tractus, terrarum videlicet, marium, astrorum, nostris temporibus in immensum aperti et illustrati sint: globi autem intellectualis fines intra veterum inventa et angustias steterint. Etiam temporum conditionem in Europa, civilium rerum respectu, non alienam esse. Aucta Anglia, pacata Gallia, lassata Hispania, immota Italia et Germania. Itaque libratis regum maximorum potentiis, et incusso nationum nobilissimarum statu, res ad paecm, quæ scientiis instar tempestatis serenæ et benignæ est, inclinare. Neque ipsum rei literariæ statum hisce temporibus incommodum esse: sed et quandam opportunitatem præ se ferre, tum ob imprimendi artem, antiquis incognitam, cujus beneficio singulorum inventa et cogitata fulguris modo transcurrere queant, tum ob religionis controversias, quarum tædio fortasse homines ad Dei potestatem, sapientiam, et bonitatem in operibus suis contemplandum facilius animum adjicere possint. Si quis autem sit, qui consensu et temporis diuturnitate in veterum placitis moveatur, is, si in res acutius introspiciat, doctores admodum paucos, reliquos sectatores tantum et numerum esse reperiet; homines nimirum, qui ab ignorantia ad præjudicium transierunt, neque in verum consensum (qui interposito judicio fit) unquam coïerunt. Atque ipsam temporis diuturnitatem recte consideranti in angustias parvas redigi. Nam ex viginti quinque annorum centuriis, in quibus memoria hominum fere versatur, vix quinque centurias seponi, quæ scientiarum proventui utiles et feraces fuerint, easque ipsas longe maxima ex parte aliis scientiis, non illa de natura satas, et cultas fuisse. Tres enim doctrinarum revolutiones et periodos numerari: unam apud Græcos, alteram apud Romanos, ultimam apud occidentales Europæ nationes: reliqua mundi tempora bellis et aliis studiis occupata, et quoad scientiarum segetem sterilia et vasta inveniri. Atque de tempore sic cogitabat: etiam ex casus vi et natura hujusmodi divinationem sumpsit. Casum nimirum proculdubio multis inventis principium dedisse, sumpta ex natura rerum occasione. Num ideo in ignis invento Prometheum novæ Indiæ ab Europæo dissensisse, quod apud eos scilicis non est copia. Itaque in his, quæ præsto sunt, casum largius inventa exhibere; in iis, quæ ab usu quotidiano semota sunt, parcius sed utcunque omnibus seculis parturire et parere. Neque enim causam videri, cur casus consenuisse putetur, aut effœtus jam factus. Igitur ita cogitabat, si hominibus non quærentibus et aliud agentibus multa inventa occurrunt, nemini sane dubium esse posse, quin iisdem quærentibus, idque via et ordine, non impetu et desultorie, longe plura detegi necesse sit. Lieet enim semel aut iterum accidere possit, ut quispiam in id forte fortuna incidat, quod magno conatu scrutantem antea fugit, tamen in summa rerum proculdubio contrarium inveniri. Casum enim operari raro, et sero, et sparsim; artem contra constanter, et compendio, et turmatim. Etiam ex inventis ipsis, quæ jam in lucem prodita sunt, de iis, quæ adhuc latent, conjecturam rectissime capi putabat. Eorum autem nonnulla ejus esse generis, ut antequam invenirentur, haud facile cuiquam in mentem venisset, de iis aliquid suspicari. Solere enim homines de novis rebus ad exemplum veterum et ad phantasiam ex iis præceptam hariolari: quod opinandi genus fallacissimum est, quandoquidem ea, quæ ex rerum fontibus petuntur, per rivulos consuetos non utique fluunt: veluti si quis, ante tormentorum igneorum inventionem, rem per effectus descripsisset, atque ita dixisset, inventum quoddam detectum esse, per quod muri et munitiones quæque maximæ ex longo intervallo quaterentur et dejicerentur; homines sane de viribus tormentorum et machinarum per pondera, et rotas, et similia multipleiandis, multa et varia commentaturos fuisse; de vento autem igneo vix unquam imaginationem aliquam occursuram fuisse; ut cujus exemplum non vidissent, nisi forte in terræ motu aut fulmine, quæ ut non imitabilia rejecissent. Eodem modo si ante fili bombycini inventionem, quispiam hujusmodi sermonem injecisset: esse quoddam fili genus ad vestium et supelleetilis usum, quod filum lineum aut laneum longe tenuitate, ac nihilominus tenacitate, ac etiam splendore et mollitie excelleret, homines statim ant de serico aliquo vegetabili, aut de alicujus animalis pilis delicatioribus, aut de avium plumis et lanugine aliquid opinaturos fuisse: de vermis autem alicujus textura, eaque tam copiosa et anniversaria, nil cogitaturos. Quod si quis etiam de vermi verbum aliquod emisisset, ludibrio eerte futurum fuisse: ut qui novas aranearum operas somniaret. Quare candem et eorum, quæ in sinu naturæ adhuc recondita sunt, magna ex parte, rationem esse, ut hominum imaginationes et commentationes fugiant et fallant. Itaque sic cogitabat, si cujus spem de novis inventis cohibeat, quod, sumpta ex iis quæ præsto sunt conjectura, ea aut impossibilia, aut minus veristmilia putet, eum scire debere, se non satis doctum ne ad optandum quidem commode et apposite esse. Sed rursus cogitabat, esse ex jam inventis alia, diversæ et fere contrariæ naturæ, quæ fidem faciant, posse genus humanum nobilia inventa etiam ante pedes

posita præterire et transmittere. Utcunque enim pulveris tormentarii, vel fili bombycini, vel acus nauticæ, vel sacchari, vel similia inventa quibusdam rerum et naturæ proprietatibus niti videantur; imprimendi certe artem nihil habere, quod non sit apertum, et fere obvium, et ex antea notis conflatum. Solere autem mentem humanam in hoc inventionis curriculo tam lævam et male compositam esse, ut in nonnullis primo diffidat, et non multo post se contemnat: atque primo incredibile videri, aliquid tale inveniri posse: postquam autem inventum sit, rursus incredibile videri, id homines tam diu fugere potuisse. Atque hoc ipsum quoque ad spem trahebat, superesse nimirum adhuc magnum inventorum cumulum, qui non solum ex operationibus incognitis eruendis, sed et ex jam cognitis transferendis et applicandis deduci possit. Etiam illa auspicia ut bona et læta accepit, quæ in artibus mechanicis observavit, atque eorum successu, præsertim ad philosophiam comparato: artes enim mechanicas ut auræ cujusdam vitalis participes, quotidie crescere et perfici; philosophiam vero statuæ more adorari et celebrari, nec moveri. Atque illas in primis auctoribus rudes et fere informes ac onerosas se ostendere: postea novas vires et commoditates adipisci. Hanc autem in primo quoque auctore maxime vigere, ac deineeps declinare. Neque aliam hujus contrarii successus causam veriorem esse, quam quod in mechanicis multorum ingenia in unum coëunt; in philosophia autem singulorum ingenia ab uno quopiam destruuntur. Nam postquam dedititii facti sunt, amplitudinem non addere, sed in uno ornando aut stipando servili officio occupari. Quare omnem philosophiam, ab experientiæ radicibus, ex quibus primum pullulavit et incrementum cepit, avulsam, rem mortuam esse. Atque hac cogitatione arrectus, etiam illud notavit; facultates artium et scientiarum, aut empiricas, aut rationales, sive philosophicas, omnium concensu esse: has autem se non bene adhuc commissas et copulatas videre. Empiricos enim, formicæ more, congerere tantum et uti: rationales autem, aranearum more, telas ex se conficere. Apis vero rationem mediam esse, quæ materiam ex floribus tam horti quam agri eliciat, sed eam etiam propria facultate vertat et digerat. Neque absimile veræ philosophiæ opificium esse; quæ ex historia naturali et mechanicis experimentis præbitam materiam non in memoria integram, sed in intellectu mutatam et subactam, reponit. Neque se neseire, esse ex empiricorum numero, qui se non mere empiricos haberi volunt, et ex dogmaticis, qui se in experientia industrios et perspicaces videri ambiunt: verum hæc fuisse et esse quorundam hominum artificia, existimationem quandam, ut alteruter in sua secta excellere videatur, captantium: revera autem harum facultatum divortia et fere odia semper valuisse. Quare ex arctiore earum et sanctiore fœdere omnia fausta et felicia portendi putabat. Etiam illud libenter vidit: intuebatur nempe infinitas ingenii, temporis, facultatum expensas, quas homines in rebus et studiis (si quis vere judicet) inutilibus collocant, quarum pars quota, si ad sana et solida verteretur, nullam non difficultatem superare posset. Neque esse quod homines particularium multitudinem reformident, cum artium phænomena manipuli instar sint ad ingenii commenta, semel ab evidentia rerum disjuncta et distracta. Atque hæc, quæ dicta sunt, singula impulsum quendam ad spem faciendam habere: ante omnia autem certissimam spem esse ex præteriti temporis erroribus. Atque (quod etiam quispiam de civili statu non prudenter administrato dixit) quod ad præterita spectando pessimum, id ipsum ad futura optimum esse. Cessantibus enim hujusmodi erroribus (ad quod ipsa monita primum gradum præstant) maximam rerum conversionem fore. Quod si homines per tanta annorum spatia viam tenuissent, nec tamen ulterius progredi potuissent, ne spem quidem ullam subesse potuisse. Tunc enim manifestum fuisse, difficultatem in materia et subjecto (quæ nostræ potestatis non sunt) non instrumento (quod penes nos est) hoc est, in rebus istis earumque obscuritate, non in animo humano et ejus adoperatione, esse. Nunc autem apparere, viam non aliqua mole aut struc imperviam, sed ab humanis vestigiis deviam esse: itaque solitudinis metum paulisper offundere, nec ultra minari. Postremo et illud statuit, si spei multo imbecillior et obscurior aura ab isto novo continente spiraverit, tamen experiundum fuisse. Non enim pari periculo rem non tentari, et non succedere: eum in illo ingentis boni, in hoc pusillæ humanæ operæ jactura vertatur. Verum et dictis et non dictis visum est ei, spei abunde esse, non tantum homini industrio ad experiendum, sed etiam prudenti et sobrio ad credendum.

Cogitavit et illud, studio necenso et spe facta, de modis perficiendi videndum esse. Hæc itaque sunt, quæ ei circa hoc generaliter visa sunt: quæ etiam nudis et apertis scntentiis claudere et complecti consentaneum putavit. Visum est ei, plane ab iis, quæ jam facta sunt, diversa facienda; itaque rerum præteritarum redargutionem ad futura viee oraculi fungi. Visum est ei, theorias et opiniones, et notiones communes, quantum rigore mentis et constantia obtineri potest, penitus aboleri: et intellectum planum et æquum ad particularia de integro accedere: ut fere non alius ad regnum naturæ, quam ad regnum cœlorum, pateat aditus; ad quod nemini nisi sub persona infantis ingredi liceat. Visum est ei, particularium sylvam et materiem, et numero, et genere, et certitudine, aut subtilitate, ad informationem sufficientem colligi et congeri, tum ex naturali historia, tum ex experimentis mechanicis, atque ex iis potissimum, quia natura plenius se prodit, cum ab arte tenetur et urgetur, quam in libertate propria. Visum est ei, eandem materiam ea ratione in tabulas atque in ordinem redigi et digeri, ut intellectus in eam agere, atque opus suum exsequi possit: cum nec Verbum divinum in rerum massam absque ordine operatum sit; visum est a particularibus, in tabulas relatis, ad novorum particularium inquisitionem minime confestim transeundum (quod tamen et ipsum res utilis sit, et instar experientiæ cujusdam literatæ) sed ad generales et communes comprehensiones prius procedendum, et naturali sane intellectus processui catenus indulgendum. Sed simul visum est ei, intellectus motum et impetum naturalem, sed pravum,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tentiam quoque meam scripto mandandam persuasit. Non dubitas, quin Cogitata et Visa tua legerim; testor id factum a me summa cum voluptate, cum id præcipui amoris argumentum interpreter, quod habeas me in tuorum numero, quibus censendos offers ingenii tui nondum evulgatos labores. Quo nomine fer me, quæso, hæc dicentem. Primo, si intimo erga te affectui, ingenium tuum, actiones et sermones id pretium diceretur, quod tui in me amoris est, liceret hæc mutuis illigata complexibus sociari. Sed omnis excluditur paritas, ubi ea sortis nostræ disparitas est, et tam longe dissident, quibus favor utriusque noster probare se nititur. Me itaque quod attinet, ex sese illa æstimari permitto, et æterno observantiæ nexu habebis me tibi devinctissimum. Ad operis tui argumentum ut accedam, est id ampla maxime insignium speculationum congeries, ut in admirationem me rapiat (qua perpetuo me defixum tenebis) quod civilibus negotiis occupatissimus et summe acciti otii, quibus nullum prorsus cum declamatis in schola dogmatibus commercium est, quicquid tamen optimæ frugis recondunt scientiarum præcipuæ, id omne accuratissimo selectu transtuleris in libri tui materiam. Quanquam enim alicubi prorsus decliues a trita et pervulgata in scholis docendi ratione, quæ apud uullius non gentis et seculi sapientes habita fuit unica veri norma; tamen et in illis, et quicquid toto moliris opere, artificem te nobis probas versatili dexteritate. De me id fateor exerte, si institutum spectetur qua in eruditionis latifundia excurrit, excerpendum me literatorum gregi. Cum tamen ita prompte vocatis ad tui tractatus censuram amicis audire libenter velle videaris, si quid mihi aut aliis occurrerit decretorio confodiendum stylo, eo me redactum sentio, ut judicium meum dissimulare non liceat, aperteque contestor ex eorum me numero, qui solidiora esse statuunt artium nostrarum fundamenta, quam tota dissertationis tuæ series admittit. Primo enim cum objicis sinistros eventus et errores practicæ medicinæ, non ignoras mali id redundare ex neglecta artis regula. Nam ne centesimus quidem medicæ cautionis observantem se præbet; et ea aliquando ægri corporis constitutio est, ut exacte doceri medicum non patiatur. Paucos enim reperias, qui rebus sic sese habentibus recte se explicent. Est et ubi malum ex se arti cedere nescit, quod in multis morbis accidens esse nosti; quandoque et in abdito causa, quam nullæ deprehendant conjecturæ. Quicquid sit; ego mihi persuadeo, illud practicæ medicinæ (prout hodie exercetur) probrum refundi in professionum incuriam aut inscitiam, aut aliam ingenii mei caliginem, quod minus felices habeat successus. Pauci enim medicos agentium ita in arte sua exercitati sunt, ut quidem quæ ex arte præscribunt flagitant. Atque hæc licet ad eam perfectionem non assurgat, admirandis tamen sanitatis adminiculis abundat, ut per tot seculorum decursum exploratissimæ fidei docuerint experimenta, quæ regiam velut viam panduut ad commendatissimam per te quoque scientiam. Alchymia et magia axiomatibus quibusdam constant sane dignis, quæ assensum impetrent. Sed tota artificum industria ita subtilitatem et imposturas miscet, ut non tantum fraus et fraudum fabri contemptum incurrant, sed et ludibriis excipiantur. Atque hic ut in solido locetur quod instituti tui pars est potissima, videntur mihi exempla tua fuisse petenda ex iis quæ liberales tradunt scientiæ, sepositis quæ sunt de raro contingentibus, et, ut in confesso est, facile refutari possunt; sed convertendam fuisse censorii styli aciem in ea quæ generalia præstruunt et tanquam non subverteuda axiomata et canones defenderunt nobilissima omnis ævi ingenia. Apud eruditos enim nihil certius, quam illud artium genus, cui scholastica olim natio nomen dedit *quadriviales*, positiones suas per irrefutabiles demonstrationes asseruisse. In aliis quoque, *triviales* dictis, eæ nobis supersunt regulæ velut per manus traditæ, quæ plerumque fine suo, in quem scientia quæque colliueat, non excedunt. Jam vero si nos consilio tuo ductiles præbeamus, id est, communes notiones homini insitas exuamus, deletisque omnibus actionibus nostris, operibus et maximis, repuerascere conemur, quo liceat intrare regnum naturæ, ut ex sacri codicis præscripto euitendum nobis est ad *regnum cœlorum*, me quidem judice, nihil certius est, quam sic præcipiti gradu eundum esse in barbariem, unde post aliquot seculorum millia nihilo instructiores emergamus theoreticis adjumentis, quam nunc sumus. Nam ita demum vere secundam ordiremur pueritiam, facti tabula rasa, ubi, deletis priorum principiorum vestigiis, resuscitare jubemur novi mundi primordia, et ab experimentis operum et sensuum (hanc enim in particularibus insistis probandi viam) colligere quod in intellectu efformetur in notionem generalem, ex decantato illo apud omnes effato, " In intellectu nihil esse, quod non prius fuerit in sensu." Neque verisimilitudine careat, posse nobis evenire, ut si ratio ineatur eruditionis, cum finienda erit Platonici anni revolutio, longe ea infra istud, quo nunc censetur, pretium decrevisse videri possit. Quod doctrinam nobis spondes excellentiorem, quam hodie inter nos viget, ab experimentis petendam, si latentes naturæ sinus pertentare et aperire liberet, stabilita in particularibus fide, non magis ad rem facit, quam si eo ineites, quo naturalis hominem instinctus rapit sine admotis exterius hortationibus. Neque enim aliud patitur ratio, quam ut infinita sint membra in omnibus mundi partibus (neque enim hic cogitationes nostræ intra Europæ terminos cohibendæ sunt) quæ viam insistunt quo digitum intendis, tam acri et solicita diligentia ut magis intendi nequeat industria. Omnibus enim insita est sciendi cupiditas, non ita exsatianda, quin exardescat vehementius, ut hydrops sibi indulgens crescit. Sed quomodo aures præbituros persuadere paranti, evertendas prorsus quibus solide constitutis inhærent sententias et universim admista theorica, tam suis, quam majorum, experimentis superexstructa, non video adferri quo inducar ut credam. Porro asserere mihi licet non invita, ut opinor, probabilitate, si tacitas intra cogitationes ad examen revocetur, quantum exuberent naturæ documenta usu comperta per totum, qua expanditur, universum, quinque aut sex ista, quæ venditas selecta et a te probata, et hodieruæ curiositati deberi vis, misere se tuerentur inter aliquot centena naturæ arcana, quibus in lucem quotidie protrahendis aut solertia ministra est, aut favet casus, et comparari possunt aut partim

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præferri iis, quæ a te designata sunt. Sed demus, sequatur assensus posse a te conferri quod ad scientiarum faciat augmentum, et universalis apud nos theoriæ notiones et axiomata fingamus extincta, suffectis noviter repertis; quid beneficii redundabit ex hac mutatione in eruditionem et scientias? Nihil certius, quam nova hæc, et quæ in eorum appendicem veniunt, ubi semel recepta fuerint, commendantibus inventoribus, et illorum assceclis gratiam priscam sensim amissura, et oblivioni tradenda, ex naturæ scito fluxus illos et refluxus alternantis, atque ita ex temporum decursu penitus habitura interitum; fortasse etiam aliis idem, quod tu nunc venditas, agitantibus, nimirum propositis adminiculis, quibus exactius limentur augendæ scientiæ. Semper enim quæ majoribus fuerunt probro, in minoribus renasci solent. Quare frustra est, quisquis ab illorum exercitationibus et tota commentandi industria aliud speraverit, quam quod priscæ observationis sit, ut fido nobis et per scripta tradito relatu constat. Hic in mentem mihi venit quod notat Paterculus, ubi de excellentissimis Græcorum et Romanorum ingeniis agit, cum florentissimæ essent ipsorum res, hanc dari posse non improbabilem causam, quæ ea pessum dedit, ut postea docuit eventus, natura "quod summo studio petitum est, adscendit ad summum, difficilisque in perfecto mora est." Adeo ut homines, si senserint ulteriore se prohiberi adscensu, in ipso constitutos fastigio, sponte deseendant, abdicatisque exercitationibus quibus plurimum inest momenti, nova affectent, tanquam occupata ab aliis materia, in qua prius laborabant. Et præsertim id eloquentiæ fatum fuit illis temporibus, ut cum posteriores desperarent posse a se præteriri priores, aut eos æquari, sequeretur neglectus et contemptus priscæ exercitationis, et per aliquot secula sermo et stylus contraheret sordes et rubiginem, donec ultima periodus novam reduxit faciem, emergentibus et se incitantibus illustribus ingeniis ad resumendos recens animatæ diligentiæ impetus, propellendosque in summum perfectionis fastigium labores non in eloquentiæ duntaxat studio, sed et quousque se porrigunt scientiarum omnium pomœria. Neque enim falli illum puto, quisquis existimaverit, artes omnes, prout publice nunc docentur, nullo non ævo extitisse, non tamen pari in omnibus locis mensura, neque eodem loco semper pari numero, sed ex temporum genio mutationibus obnoxio, nunc auctiores florentioresque, nunc inexsuscitatæ et cum tenebricosæ institutionis methodo rudi.

Ratio ex me si quæratur, facit pro me doctrina Aristotelis et aliorum elaboratissimi ingenii virorum, a quibus supersunt nobis plurima adminicula; unde id probetur et ad liquidum deducatur, quod aliis in rebus idem in artibus contingere, darique ortum et interitum; congrua prorsus, si me interpretem audias, sententia ei, quod dici solet: "Nihil novum sub sole," et quæ non in facta magis quam dicta quadrat, "Ut nihil neque dictum neque factum sit, quod non et dictum et factum prius."

Patrocinatur 2°. etiam celebris illa Salomonis ad filium querela in prurientes suo seculo voluminum fabros, non alio sensu accipienda, quam quod magna eorum pars et fuerint observationes et in qualibet literatura artificiosi instar syntagmatis. Neque ex tam ampla congerie vel pulvisculus supercst, si excipias quædam sacri codicis, posteritati relicta. Et anne tunc quidem per tot scriptorum millia, qui Salomonis ævum antecessere, reperiri potuit quidquam novitatis titulo donandum? Habenda tamen ei fides est, cum ait, non obstantibus quæ vel sua ferebant, vel priora tulerant tempora, non potuisse dici, "Ecce novi quid." Unde id colligo, cum per omnia secula et in omnibus artibus et scientiis eadem fuerint in hominibus labor, exercitatio, et cognitio, eum iis, quæ nostro videmus tempore, etsi mutationum æstu fluctuantia, prout temporum et locorum occasionisque variat ratio, et incalescit scriptorum industria, intendi et remitti solita tam in theoreticis suis quam practicis, si assentimur tibi, primo, ut scientia nostra rejiciatur tanquam dubia et incerta, (quod affirmas duntaxat non minus argumentorum robore,) deinde ut abdicentur axiomata nostra et maximæ, generalesque assertiones, a majoribus quasi per manus traditæ, quæ tamen (aliter enim hæc intelligi nequeunt) subtilissimis omnis ævi judiciis comprobata sunt: ultimo, ut excogitetur ratio, quæ nos, jam factos abecedarios, per tortuosas particularium experimentorum ambages provehat ad cognitionem ex solide collectis generalibus, unde nova exsculpantur artium principia, finis erit ut exuti, quas nunc habemus, disciplinis, et fatigati redeuntibus in circulum laboribus, illue tendamus, unde incepimus, eoque deducamur felicitatis quæ nos in integrum restituat. Res ea est tot seculorum, quot ante nos transacta fluxerunt, ut tandem in perfectionis meta consistamus. Neque ita hic censor sedco, quasi fastidiose explodam quicquid augendis per nova inventa impenditur scientiis, cum conatus iste nobilis sit, neque summa laude fraudandus, ob beneficium quo in præsens perfrui licet. Nunquam defuit mundo ingens illorum agmen qui novis excogitandis operam dederunt, neque futura carebunt secula, in quibus industria pertinax et excellens hac in parte peperit nobis ea, quæ in admirationem rapiunt, captum populærem et spem transgressa. Nostræ tamen notiones et axiomata tam ab iis, quam ab eruditorum eminentissimis, semper cum gratiis recepta sunt.

Vides quam in me fiduciam tua crearit humanitas; si in ista tui impugnandi licentia lasciviente protervia cfferor, quam de ereeta tua indole conceepi opinio, et libertate, quam hic amicorum præcipuis indulges, eo me impulit alioquin restitantem. Et quanquam, equi instar sub auriga rectore, non recedam a veteri et trita via, quam sedulo calcavi, ita tamen sentio de unis cogitatis, et fateri me res ipsa cogit, tecum et cum mundo iniquius te egisse, cum tantas opes domestieo carcere damnatas invidisti publico usui. Licet enim persuasum habeam quoad tenorem et subjectum præcipuæ disscrtationis, nulla in academia te reperturum tribunal, quod erroris te absolvere sustineat; tamen negari non potest, tractatum tuum ubique scatere conceptibus selectæ frugis super præsenti statu scientiarum, et ingeniosissimis commentationibus super adjumentis eas promovendi, ut efficacissime eum trahat, quicunque earum rerum studio capitur, penitusque explorandi gignat haud

iners desiderium, non ut eo tantum enitatur quod in pervulgatis hodie scientiis summum est, sed ut altius quasi feratur in ipsa latentis naturæ viscera, omnesque ingenii et judicii nervos intendat, donec D. Pauli illud perfecerit "consectari meliora dona." Utinam hanc ingressus esses viam (votum id auribus tuis depono) cum primum ad hæc studia animum adjiceres, vir longe alterius scholæ! nihilominus utcunque hæc se habeant, cum id tibi firmum fixumque sedeat, et patriæ fidem tuam probes, toto affectu precor, quod sæpissime facio, ut paria meritis tuis obtingant. Quod, spero, affluet aliquando plenis honorum et felicitatis rivis.

Fulhami, Feb. 19, 1607.

DESCRIPTIO GLOBI INTELLECTUALIS.

CAPUT I.

Partitio universalis humanæ doctrinæ in historiam, poësin, philosophiam, secundum triplicem facultatem mentis; memoriam, phantasiam, rationem; quodque eadem partitio competat etiam in theologicis: cum idem sit vas (nempe intellectus humanus) licet materia et insinuatio sint diversa.

Partitionem doctrinæ humanæ eam deligimus, quæ triplici facultati intellectus respondeat. Tres itaque ejus partes a nobis constituuntur: historia, poësis, philosophia: historia ad memoriam refertur: poësis ad phantasiam: philosophia ad rationem. Per poësin autem nihil aliud intelligimus hoc loco, quam historiam fictam. Historia proprie individuorum est; quorum impressiones sunt mentis humanæ primi et antiquissimi hospites; suntque instar primæ materiæ scientiarum. In his individuis, atque in hac materia, mens humana assiduo se exerceat, interdum ludit. Nam scientia omnis, mentis et exercitatio et opificium; poësis ejusdem lusus censeri possit. In philosophia mens mancipatur rebus; in poësi solvitur a nexu rerum, et expatiatur, et fingit quæ vult. Hæc vero se ita habere facile quis cernat, qui simpliciter tantummodo, et pingui quadam contemplatione intellectualium origines petat. Etenim individuorum imagines excipiuntur a sensu, et in memoria figuntur. Abeunt autem in memoriam tanquam integræ, eodem quo occurrunt modo. Has rursus retrahit et recolit mens; atque (quod officium ejus proprium est) portiones earum componit et dividit. Habent enim individua singula aliquid inter se commune, atque aliud rursus diversum et multiplex. Ea vero compositio atque divisio vel pro arbitrio mentis fit, vel prout invenitur in rebus. Quod si fiat pro arbitrio mentis, atque transferuntur portiones illæ ad placitum, in similitudinem quandam individui, phantasiæ opus est, quæ, nulla naturæ aut materiæ lege et necessitate astricta, ea, quæ in rerum natura minime conveniunt, conjungere: quæ vero nunquam separantur, discerpere potest; ita tamen ut intra primas illas ipsas individuorum portiones coërceatur. Nam eorum, quæ nulla ex parte se sensui obtulerunt, non est phantasia, nec somnium profecto. Quod si eædem individuorum portiones componantur et dividantur, pro ipsa rerum evidentia, et prout vere in natura se produnt, aut saltem pro captu cujusque se prodere notantur, eæ partes rationis sunt: atque universa hujusmodi dispensatio rationi attribuitur. Ex quo liquido constat, ex tribus hisce fontibus esse tres illas emanationes historiæ, poësis, et philosophiæ; neque alias, aut plures esse posse. Nam sub philosophiæ nomine complectimur omnes artes et scientias, et quicquid denique a singularum rerum occursu per mentem in generales notiones collectum et digestum est. Neque alia censemus ad doctrinam partitionem, quam illa superiore, opus esse. Informationes enim oraculi, et sensus, et re proculdubio, et modo insinuandi differunt; sed tamen spiritus humanus unus atque idem est: perinde ac si diversi liquores, atque per divisa infundibula, tamen in unum atque idem vas recipiantur. Quare et theologiam ipsam aut ex historia sacra constare asserimus, aut ex præceptis et dogmatibus divinis, tanquam perenni quadam philosophia. Ea vero pars, quæ extra hanc divisionem cadere videtur, (quæ est prophetia,) et ipsa historiæ species est cum prærogativa divinitatis, in qua tempora conjunguntur, ut narratio factum præcedere possit; modum autem enuntiandi et vaticiniorum per visiones, et dogmatum cœlestium per parabolas, participat ex poësi.

CAPUT II.

Partitio historiæ in naturalem et civilem; ecclesiastica et literaria sub civili comprehensa. Partitio historiæ naturalis in historiam generationum, prætergenerationum, et artium, et triplici statu naturæ, liberæ videlicet, aberrantis, et constrictæ.

Historia aut naturalis est, aut civilis. In naturali naturæ res gestæ et facinora memorantur; in civili, hominum. Elucent proculdubio divina in utrisque, sed magis in humanis, ut etiam propriam in historia speciem constituant, quam sacram aut ecclesiasticam appellare consuevimus. Itaque eam civili attribuimus; at primo de naturali dicemus. Naturalis historia rerum singularium non est; non quod perperam a nobis positum sit historiam versari in individuis, quæ loco et tempore circumscribuntur. Nam proprie ita se res habet. Sed cum promiscua sit rerum naturalium similitudo, adeo ut si unum noris, omnia noris;

superfluum quiddam esset et infinitum de singulis dicere. Itaque sicubi absit illa promiscua similitudo, recipit etiam historia naturalis individua; ea scilicet, quorum non est numerus, aut natio quædam. Nam et solis, et lunæ, et terræ, et similium, quæ unieæ sunt in specie sua, rectissima conscribitur historia; nec minus eorum, quæ insigniter a specie sua deflectunt, et monstrosa sunt; quandoquidem in illis, descriptio et cognitio ipsius speciei nec sufficit nec competit. Itaque hæc duo individuorum genera historia naturalis non rejicit: ut plurimum autem (quemadmodum dictum est) in speciebus versatur. At partitionem historiæ naturalis moliemur ex vi et conditione ipsius naturæ, quæ in triplici statu posita invenitur, et tanquam regimen subit trinum. Aut enim libera est natura, ac sponte fusa, atque cursu consueto se explicans, eum scilicet ipsa natura per se nititur, nullatenus impedita aut subacta: ut in cœlis, animalibus, plantis, et universo naturæ apparatu; aut rursus illa a pravitatibus et insolentiis materiæ contumacis et rebellis, atque ab impedimentorum violentia, de statu suo plane convellitur et detruditur, ut in monstris et heteroclitis naturæ: aut denique ab arte et ministerio humano constringitur, et fingitur, et plane transfertur, et tanquam novatur, ut in artificialibus. Etenim in artificialibus natura tamquam facta videtur, et conspicitur prorsus nova corporum facies et veluti rerum universitas altera. Itaque tractat historia naturalis aut libertatem naturæ, aut errores, aut vincula. Quod si cuiquam molestum sit artes dici naturæ vincula, eum potius liberatores et vindices censeri debeant, quod naturam in nonnullis suæ intentionis compotem faciant, impedimentis in ordinem redactis: nos vero hujusmodi delicias et pulchra dictu nil moramur; id tantum volumus et intelligimus, naturam per artem, tanquam Proteum, in necessitate poni id agendi, quod absque arte actum non fuisset: sive illud vis vocetur et vincula, sive auxilium et perfectio. Partiemur itaque historiam naturalem in historiam generationum; historiam prætergenerationum; et historiam artium, quam etiam mechanicam et experimentalem appellare consuevimus. Libenter autem historiam artium ut historiæ naturalis speciem constituimus; quia inveteravit prorsus mos disserendi et opinio, ac si aliud quippiam esset ars a natura, ut artificialia a naturalibus segregari debeant, tanquam toto genere discrepantia: unde et illud mali, quod plerique historiæ naturalis scriptores perfunctos se putant, si historiam animalium, aut plantarum, aut mineralium confecerint, omissis artium mechanicarum experimentis (quæ longe maximi ad philosophiam momenti sunt); tum etiam illabitur animis hominum subtilius aliud malum; nempe ut ars censeatur solummodo ut additamentum quoddam naturæ; cujus scilicet ea sit vis, ut naturam vel inchoatam perficere, vel inclinatam emendare possit; minime vero radicitus transmutare, atque in imis concutere; quod plurimum rebus humanis desperationis intulit. At contra illud penitus animis hominum insidere debuerat, artificialia a naturalibus non forma aut essentia, sed efficiente tantum, differre; homini vere in naturam plane nullius rei potestatem esse, præterquam motus: ut corpora scilicet naturalia aut admoveat, aut amoveat; reliqua naturam intus per se transigere. Itaque ubi datur debita admotio corporum naturalium aut remotio, omnia potest homo, atque ars: ubi non datur, nihil. Rursus autem modo corporum fiat debita illa admotio, aut remotio, in ordine ad aliquem effectum, sive hoc per hominem et artem fiat, sive naturaliter absque homine, parum refert. Neque hoc illo fortius est, veluti si quis ex aspersione aquæ simulacrum iridis super parietem excitet, non minus obsequente utitur natura, quam cum idem fit in aëre ex nube roscida. Contra vero, cum aurum invenitur in arenulis purum, æque sibi ipsi ministrat natura, ac si aurum purum per fornacem et ministerium hominis excoqueretur. Aliquando autem ministerium ex lege universi aliis animalibus deputatur: neque enim minus artificiale quiddam est mel, quod fit mediante industria apis, quam saccharum, quod hominis, atque in manna (quod similis est generis) natura seipsa contenta est. Itaque eum una atque eadem sit natura, ejus autem vis per omnia valeat, neque unquam illa a seipsa desciscat; omnino tanquam ex æquo subordinata tantum ad naturam poni debent hæc tria, cursus naturæ; exspatiatio naturæ; et ars sive additus rebus homo; ideoque in historia naturali ea omnia una et continua narrationum serie involvi par est: quod etiam Caius Plinius magna ex parte fecit; qui historiam naturalem pro dignitate complexus est, sed complexam indignissime tractavit. Atque hæc sit naturalis historiæ partitio prima.

CAPUT III.

Partitio historiæ naturalis, ex usu et fine suo: quodque finis longe nobilissimus historiæ naturalis sit ministratio prima ad condendam philosophiam; et quod hujusmodi historia (quæ scilicet sit in ordine ad eum finem) desideretur.

Cæterum historia naturalis ut subjecto triplex (quemadmodum diximus) ita usu duplex est. Adhibetur enim aut propter cognitionem rerum ipsarum, quæ historiæ mandantur, aut tanquam materia prima philosophiæ. Nobilissimus autem finis historiæ naturalis is est; ut sit inductionis veræ et legitimæ supellex atque sylva; atque satis trahat ex sensu ad instruendum intellectum. Illa enim altera, quæ aut narrationum jucunditate delectat, aut experimentorum usu juvat, atque hujusmodi voluptatis aut fructus gratia quæsita est; inferioris profecto notæ est, et genere ipso vilior, præ ea, cujus ea est vis et qualitas, ut propria sit parasceve ad condendam philosophiam. Hæc enim demum ea est historia naturalis, quæ veræ et activæ philosophia solida et æterna basis constituitur; quæque lumini naturæ puro et minime phantastico primam accensionem præbet; cujus quoque neglectus et genius non placatus, acies illas larvarum, ac veluti regna umbrarum, quæ in philosophiis volitare cernuntur, eum maxima et calamitosa operum sterilitate nobis pessimo fato immisit. Affirmamus autem, et plane testamur, historiam naturalem, qualis in ordine esse debeat ad istum finem, non haberi, sed desiderari,

atque inter omissa poni oportere. Neque vero aciem mentis alicujus perstringant aut magna antiquorum nomina, aut magna novorum volumina, ut querelam istam nostram minus justam cogitet. Satis enim scimus haberi historiam naturalem, mole amplam, varietate gratam, diligentia sæpius curiosam. Attamen si quis ex ea fabulas, et antiquitatem, atque auctorum citationes et suffragationes, lites item inanes et controversias, philologiam denique, et ornamenta eximat (quæ ad convivales sermones hominumque doctorum noctes potius, quam ad instituendam philosophiam, sunt accommodata) profecto ad nihil magni res recidat. Itaque thesaurus quidam potius ad eloquentiam a nonnullis, quam solida et fida rerum narratio quæri et parari videtur. Præterea, non multam ad rem faciat memorare aut nosse florum, iridis, aut tulipæ, aut etiam concharum, aut canum, aut accipitrum eximias varietates. Hæc enim hujusmodi nil aliud sunt, quam naturæ lusus quidem et lascivia: et prope ad individuorum naturam accedunt. Itaque habent cognitionem in rebus ipsis exquisitam; informationem vero ad scientias tennem et fere supervacuam. Atque hæc sunt tamen illa, in quibus naturalis historia vulgaris se jactat. Cum autem degeneraverit historia naturalis ad aliena, et rursus luxuriata sit in superfluis; tamen e contra magnæ utique et solidæ ejusdem partes aut prorsus prætermissæ sunt, aut negligenter et leviter tractatæ: universa vero inquisitione sua et congerie, nullo modo ad eum, quem diximus, finem (condendæ scilicet philosophiæ) apta et qualificata reperitur. Id in membris ipsius optime apparebit, atque ex comparatione ejus historiæ, cujus descriptiones hominibus sub oculos jam proponemus, ad eam, quæ habetur.

CAPUT IV.

Incipit tractatus qualis esse debeat historia desiderata; nempe historia naturalis ad condendam philosophiam. Id ut clarius explicetur, primo subjungitur partitio historiæ generationum. Ejus constituuntur partes quinque: prima, cœlestium. Secunda, meteororum. Tertia, terræ et maris. Quarta, collegiorum majorum, sive elementorum aut massarum. Quinta, collegiorum minorum sive specierum. Historia vero virtutum primarum rejicitur donec explicatio primæ illius partitionis generationum, prætergenerationum, et artium, sit absoluta.

Quanquam vero e fide nostra esse censemus, hujus ipsius historiæ, quam desideramus, confectionem non aliis relinquere, sed nobis ipsis desumere, propterea quod quo magis hæc res omnium industriæ patere videatur, eo major subest metus, ne ab instituto nostro aberrent; idcoque eam ut tertiam instaurationis nostræ partem designavimus: tamen ut institutum nostrum de explicationibus sive repræsentationibus omissorum, perpetuo servemus; atque etiam, si quid nobis humanitus acciderit, ut aliquid in tuto positum sit; sententiam nostram et consilia de hac re jam hoc loco subjungere visum est. Historiæ generationum, sive naturæ solutæ, quinque partes constituimus; eæ sunt historia ætheris, historia meteororum et regionum quas vocant aëris. Etenim tractum sublunarem ad superficiem usque terræ, et corpora in eo locata, historiæ meteororum attribuimus. Etiam cometis cujuscunque generis (utcunque se habeat rei veritas) tamen ordinis causa, locum inter meteora assignamus. Tertio subit historia terræ et maris, quæ conjuncta globum constituunt unicum. Atque hucusque rerum natura distribuitur ex locis et locatis: reliquæ dnæ partes substantias rerum distinguunt, vel massas potius. Congregantur enim corpora connaturalia ad majores et minores massas: quæ collegia rerum majora et minora appellare consuevimus: habentque in politia mundana rationes inter se tanquam tribus et familiæ. Itaque quarto ordine ponitur historia elementorum sive collegiorum majorum; quinto et ultimo historia specicrum sive collegiorum minorum. Elementa enim eo sensu accipi volumus, ut intelligantur non exordia rerum, sed tantum corporum connaturalium massæ majores. Majoritas autem illa accidit propter texturam materiæ facilem, simplicem, obviam et paratam; cum species a natura parce suppeditentur, propter texturam dissimilarem, atque in plurimis organicam. Virtutum vero illarum, quæ in natura censeri possint tanquam cardinales et catholicæ, densi, rari, levis, gravis, calidi, frigidi, consistentis, fluidi, similaris, dissimilaris, specificati, organici, et similium, una cum motibus ad illa facientibus, uti antitypiæ, nexus, coitionis, expansionis, et reliquorum (quorum historiam omnino congeri et confici volumus, etiam priusquam ad opus intellectus deveniatur) virtutum et motuum historiam, ejusque conficiendæ modum tum tractabimus, postquam explicationem triplicis illius partitionis, generationum, prætergenerationum, et artium absolverimus. Neque enim eam scilicet intra triplicem illam nostram partitionem inclusimus, cum non proprie sit historia, sed inter historiam et philosophiam veluti terminus medius. Jam vero de historia cœlestium, et deinceps de reliquis dicemus atque præcipiemus.

CAPUT V.

Resumitur tractanda historia cœlestium; qualis et esse debeat in genere, et quod legitima hujusce historiæ ordinatio versetur in triplici genere præceptorum; videlicet, de fine, de materia, ac de modo conficiendæ hujusmodi historia.

Historiam cœlestium simplicem esse volumus, nec dogmatibus imbutam; sed veluti suspensa vi et doctrina theoriarum; quæque solummodo phænomena ipsa sincera complectatur, et separata, quæ jam dogmatibus fere concreverunt; denique quæ narrationes proponat eo prorsus modo, ac si nihil ex artibus astronomiæ et astrologiæ decretum esset, sed experimenta tantum et observationes exacte collecta et perspicue descripta forent. In quo genere historiæ nihil adhuc invenitur, quod nostro respondeat voto. Hujusmodi quiddam tantummodo cursim et licenter attigit Caius Plinius: sed optima forct ea

historia cœlestium, quæ ex Ptolemæo, et Copernico, et doctioribus astronomiæ scriptoribus exprimi et erui possit, si artem experimento plane spolies, adjunctis etiam recentiorum observationibus. Quod si cui mirum videatur, nos tanto labore parta, aucta, emendata, rursus ad primam imperitiam, et nudarum observationum simplicitatem retrahere velle; nos vero nulla cum priorum inventorum jactura, tamen longe majus opus movemus; neque enim calculos aut prædictiones tantum meditamur, sed philosophiam; eam scilicet, quæ de superiorum corporum non motu solummodo, ejusque periodis, sed substantia quoque et omnimoda qualitate, potestate, atque influxu, intellectum humanum informare, secundum rationes naturales atque indubitatas, absque traditionum superstitione et levitate, possit; atque rursus in motu ipso invenire atque explicare, non quid phænomenis sit consentaneum, sed quid in natura penitus repertum, atque actu et reipsa verum sit. Facile autem quis cernat, et eos, quibus terram rotari placet, et eos contra, qui primum mobile, et veterem constructionem tenuerunt, æqua fere et ancipiti phænomenorum advocatione niti. Quin et ille novæ constructionis nostra ætate auctor, qui solem secundi mobilis, quemadmodum terram primi mobilis centrum constituit, ut planetæ in propriis suis conversionibus circa solem choreas ducere videantur (quod ex antiquioribus nonnulli de Venere et Mercurio suspicati sunt) si cogitata ad exitum perduxisset, belle profecto rem confiecre potuisse videtur. Neque vero nobis dubium est, quin et aliæ hujusmodi constructiones ingenio et aeri cogitatione adinveniri possint. Neque illis, qui ista proponunt, admodum placet, hæc, quæ adducunt, prorsus vera esse, sed tantummodo ad computationes et tabulas conficiendas commode supposita. At nostra ratio alio spectat; non enim concinnationes, quæ variæ esse possunt, sed veritatem rei quærimus, quæ simplex est. Ad hoc vero historia phænomenorum sincera viam aperiret, infecta dogmate obstruet. Neque illud tacemus, nos in hac ipsa historia cœlestium, ad normam nostram facta et congesta, spem per se ponere veritatis circa cœlestia inveniendæ; sed multo magis in observatione communium passionum et desideriorum materiæ in utroque globo. Etenim ista æthereorum et sublunarium quæ putantur divortia, commenta nobis videntur et superstitio cum temeritate; cum certissimum sit complures effectus, veluti expansionis, contractionis, impressionis, cessionis, congregationis ad massas, attractionis, abactionis, assimilationis, unionis, et similium, non solum hic apud nos, sed et in fastigiis cœli, et in visceribus terræ locum habere. Atque non alii interpretes magis fidi adhiberi aut consuli possunt, ut intellectus humanus et ad profunda terræ, quæ omnino non cernuntur, et ad alta cœli, quæ plerumque fallaciter cernuntur, penetret. Itaque optime antiqui, qui Protcum illum multiformem, etiam vatem ter maximum fuisse retulerunt; qui futura, præterita, et occulta præsentium novisset. Nam qui materiæ passiones catholicas novit, atque per hæc novit quid esse possit; non poterit non nosse etiam quid fuerit, quid sit, et quid futurum sit, secundum summas rerum. Itaque plurimum spei et præsidii ad contemplationem cœlestium in physicis rationibus collocamus: per physicas rationes intelligendo non eas quæ vulgo esse putantur, sed tantum doctrinam circa illos appetitus materiæ, quos nulla regionum aut locorum diversitas distrahere aut disterminare queat. Neque propterea (ut ad propositum revertamur) ulli diligentiæ parci volumus, quæ circa phænomenorum ipsorum cœlestium narrationes et observationes possit impendi. Nam quanto uberior suppetat apparentiarum hujusmodi copia, tanto omnia erunt et magis in promptu et firmiora. De quo antequam plura dicamus, est plane quod gratulemur et mechanicorum industriæ, et doctorum quorundam hominum curæ et alacritati, quod jam nuper per instrumentorum opticorum veluti scaphas et naviculas nova tentari cœperint cum cœlestibus phænomenis commercia. Atque hoc inceptum et fine et aggressu nobile quoddam et humano genere dignum esse existimamus: eo magis quod hujusmodi homines et ausu laudandi sint et fide; quod ingenue et perspicue proposuerunt quomodo singula illis constiterint. Superest tantum constantia cum magna judicii severitate, ut et instrumenta mutent; et testium numerum augeant; et singula, et sæpe experiantur, et varie, denique ut et sibi ipsi objiciant, et aliis patefaciant quicquid in contrarium objici possit, et tenuissimum quemque scrupulum non spernant; ne forte illis eveniat, quod Democrito et aniculæ suæ evenit circa ficus mellitas, ut vetula esset philosopho prudentior, et magnæ et admirabilis speculationis causæ subesset error quispiam tenuis et ridiculus. At ista tanquam præfati in genere, accedamus ad descriptionem historiæ cœlestium magis explicatam; ut ostendamus quæ et qualia circa cœlestia quæri oporteat. Primo igitur quæstiones naturales, aut saltem ex iis nonnullas, easque præcipuas proponemus: iis usus humanos, quales verisimile est ex cœlestium contemplatione educi posse, adjiciemus; hæc utraque tanquam historiæ scopum, ut quibus historiam cœlestium componere curæ erit, norint quid agatur, easque quæstiones una cum operibus illis et effectis habeant in animo et intueantur; unde talem instituant et parent historiam, qualis ad judicia hujusmodi quæstionum, et præbitionem hujusmodi fructus et utilitatum erga genus humanum, sit accommodata. Quæstiones autem intelligimus ejus generis, quæ de facto naturæ quærant, non de causis. Hoc enim pertinet proprie ad historiam. Deinde distincte monstrabimus in quibus historia cœlestium consistat: quæque ejus sint partes; quæ res apprehendendæ aut exquirendæ, quæ experimenta sint comparanda et procuranda, quæ observationes adhibendæ et pensitandæ, proponentes tanquam topica quædam inductiva, sive articulos ad interrogandum de cœlestibus. Postremo præcipiemus nonnulla non solum de eo, quod quæri oporteat, sed et de hoc, quomodo quæsita debeant pensitari, etiam exhiberi, atque in literas referri, ne primæ inquisitionis diligentia pereat in successione, aut, quod pejus est, infirmis et fallacibus initiis nitantur progressus qui sequentur. In summa, dicemus et ad quid quæri debeat circa cœlestia, et quid, et quomodo.

CAPUT VI.

Quod quæstiones philosophicæ circa cœlestia, etiam quæ præter opinionem sunt, et quodammodo duræ, recipi debeant: proponuntur vero quinque quæstiones circa systema ipsum; videlicet, an sit systema? et, si sit, quod sit centrum ejus, et qualis profunditas, et qualis connexio, et qualis partium collocatio?

Existimabimur autem plerisque proculdubio reliquias quæstionum veterum, jampridem quasi tumulo conditas et sepultas, rursus eruere, et fere manes earum evocare, iisque novas insuper quæstiones adspergere. Sed cum ea, quæ adhuc habetur circa cœlestia, philosophia nihil habeat firmitudinis; cumque illud nobis perpetuo ratum et fixum sit, omnia novo legitimæ inductionis judicio sistere; cumque si forte quæstiones aliquæ a tergo relinquantur, tanto minus operæ et diligentiæ consumetur in historia, propterea quod supervacuum fortasse videbitur ea inquirere, de quibus quæstio non fuerit mota; necesse habemus quæstiones, quas ubique porrigit rerum natura, in manus accipere. Quin quo minus certi sumus de quæstionibus per viam nostram determinandis, eo nos minus difficiles præbemus in iisdem recipiendis. Exitum enim rei videmus. Prima igitur ea quæstio est, An sit systema? Hoc est, An mundus sive universitas rerum sit globosa secundum totum, cujus sit centrum aliquod? An potius globi particulares terræ et astrorum spargantur; et singuli suis hæreant radicibus, absque systemate, et medio sive centro communi. Atque certe jactavit schola Democriti et Epicuri, auctores suos mœnia mundi diruisse. Neque tamen id prorsus secutum est ex iis, quæ ab illis dicta sunt. Nam Democritus cum materiam sive semina copia infinita, attributis et potestate finita, eademque agitata, nec ab æterno quovis modo locata, posuisset, vi ipsa illius opinionis adductus est, ut mundos multiformes, ortui et interitui obnoxios, alios melius ordinatos, alios male hærentes, etiam tentamenta mundorum et intermundia statueret. Sed tamen ut hoc receptum fuisset, nihil officiebat quin illa pars materiæ, quæ deputata est huic ipsi mundo, qui nostro generi est conspicuus, obtinuerit figuram globosam. Necesse enim fuit ut singuli ex illis mundis figuram aliquam accepissent. Etsi enim in infinito medium aliquod esse nequeat, tamen in partibus infiniti rotunda figura subsistere potest, non minus in mundo aliquo quam in pila. Verum Democritus sector mundi bonus fuit, in integralibus autem mundi etiam infra mediocres philosophos. At opinio illa, de qua nunc loquimur, quæ destruebat et confundebat systema, fuit Heraclidis Ponici, et Ecphanti et Nicetæ Syracusani, et præcipue Philolai, atque etiam nostra ætate Gilberti, et omnium (præter Copernicum) eorum, qui terram planetam et mobilem, et tanquam unam ex astris, crediderunt. Atque ille opinio hanc vim habet, ut planetæ et stellæ singulæ, atque etiam aliæ innumeræ, quæ conspectum nostrum ob distantiam fugiunt, necnon aliæ, quæ nobis sunt invisibiles propter naturam non lucentem sed opacam, suos quæque sortitæ globos, et formas primarias, per expansionem istam, quam suspicimus, immensam, sive vacui sive corporis cujusdam tenuis et fere adiaphori, tanquam insulæ in pelago immenso spargantur et pendeant, atque super centrum non commune aliquod, sed quæque globi sui proprii volent: aliæ simpliciter, aliæ cum motu nonnullo centri progressivo. Atque illud maxime durum est in hac opinione, quod tollunt quietem sive immobile e natura. Videtur autem, quemadmodum sunt in universo corpora, quæ rotant, id est, motu feruntur infinito et perpetuo; ita et ex opposito debere esse corpus aliquod, quod quiescat: quibus interponitur media natura eorum quæ feruntur recta, cum motus rectus partibus globorum conveniat, et rebus exulantibus extra patrias suas, quæ ad globos connaturalitatis suæ movent, ut cum iis unitæ ipsæ quoque aut rotent aut quiescant. Verum huic quæstioni (nempe an sit systema?) finem dabunt ea, quæ circa motum terræ, an scilicet terra stet aut rotet? atque circa substantiam astrorum, an sit solida aut flammea? et circa æthera, sive spatia cœli interstellaria, an sint corporea aut vacua? decerni poterunt. Nam si terra stet, et cœli motu diurno circumvolvantur, proculdubio est systema: quod si terra rotet, tamen non prorsus evincitur non esse systema, propterea quod aliud possit poni centrum systematis, videlicet sol, aut aliud quippiam. Rursus, si unicus globus terræ sit densus et solidus, videtur materia universi coire et densari ad centrum illud: quod si inveniantur luna aut alii ex planetis constare etiam ex materia densa et solida, videntur ex eo coire densa non ad centrum aliquod, sed sparsim et quasi fortuito. Postremo, si ponatur vacuum coacervatum in spatiis interstellaribus, videntur globi singuli habere circa se effluvia tenuiora, et deinde vacuum. Quod si et illa spatia corpore replentur, videtur esse unio densorum in medio, et rejectio tenuiorum ad circumferentiam. Plurimum autem confert ad scientias, nosse conjugationes quæstionum, propterea quod in aliquibus invenitur historia sive materia inductiva ad eas dirimendas, in aliquibus non item. Dato vero systemate, proxime accedit quæstio ea secunda, quod sit centrum systematis? Enimvero si aliquis ex globis locum centri occupare debeat, occurrunt globi imprimis duo, qui naturam medii sive centri præferre videntur, terra et sol. Pro terra suffragantur aspectus noster et inveterata opinio, atque illud omnium maxime, quod cum densa coëant in angustum, rara in latum diffundantur (area autem omnis circuli contrahatur ad centrum) videtur sequi quasi necessario, ut angustiæ circa medium mundi statuantur, ut proprius locus et tanquam unicus ad corpora densa. Pro sole autem facit ratio illa, quod cujus partes sunt in systemate maximæ et potissimæ, ei is locus assignari debeat, ex quo ipse in universum systema maxime agere et se communicare possit. Quando vero is sit sol, qui mundum vivificare plurimum videatur, impertiendo calorem et lucem; rite omnino atque ordine videri possit collocatus in medio mundi. Accedit et illud, quod sol manifeste habeat assectatores. Venerem et Mercurium, etiam, ex sententia Tychonis, planetas re-

liquos; adeo ut plane videatur sol centri naturam sustinere posse, et vices gerere in aliquibus; eo propius absit, ut universi centrum constitui possit; quæ Copernici assertio fuit. Veruntamen in systemate Copernici multa et magna inveniuntur incommoda; nam et quod triplici motu terram oneravit, incommodum magnum, et quod solem a cœtu planctarum divulsit, cum quibus tot habet passiones communes, similiter durum; et quod tantum immobilis introduxit in naturam, ponendo solem et stellas immobiles præsertim corpora maxime omnium lucida et radiantia; et quod lunam terræ tanquam in epicyclo adhærere voluit; et alia nonnulla, quæ ille sumit, ejus sunt viri, qui quidvis in natura fingere, modo calculi bene cedant, nihili putet. Quod si detur motus terræ, magis consentaneum videatur, ut tollatur omnino systema, et spargantur globi secundum eos, quos jam nominavimus, quam ut constituatur tale systema, cujus sit centrum sol: idque consensus seculorum et antiquitatis potius arripuit et approbavit. Nam opinio de motu terræ nova non est, sed ab antiquis repetita, quemadmodum diximus; at illa de sole, ut sit centrum mundi, et immobile, prorsus nova est, (excepto uno versiculo male traducto,) et primo a Copernico introducta. Sequitur tertia quæstio de profunditate systematis; non ut aliqua ejus mensura capiatur perfecta, sed ut in certo ponatur; an cœlum stellatum sit instar unius regionis, sive, ut vulgo loquuntur, orbis; an vero stellæ fixæ quas vocant, sint aliæ aliis sublimiores immensa quadam profunditate? Neque enim ullo modo fieri potest, ut illæ sint paris altitudinis, si hoc intelligatur exacte; stellæ enim proculdubio non sunt sitæ tanquam in plano, quæ habeant dimensionem quandam tantum in superficie, instar maculæ rum aut bullarum; sed sunt illæ globi integri, magni atque profundi. Itaque eum tam disparis reperiantur esse magnitudinis, omnino necesse est, ut aliæ ex iis magis quam aliæ promineant, vel sursum versus, vel deorsum; nec fieri potest ut aut per superiora aut inferiora una conjungantur superficie. Hoc vero si fiat in partibus stellarum, temerarium plane esset asserere etiam in corpore integro stellas non esse alias aliis altiores; sed ut hoc verumsit, tamen asseri potest crassities quædam definita (licet insignis) ejus regionis, quæ vocatur sphæra sive cœlum stellatum, quæ hujusmodi prominentias et altitudinis gradus quodammodo terminet; videmus enim ex apogæis et perigæis planetarum, singulis eorum cœlis competere crassitiem notabilem, per quæ ascendant et descendant. At quæstio ista tantum eo spectat, utrum stellæ aliæ sint super alias, tanquam planeta super planetam, et quasi in diversis orbibus. Atque hæc quæstio illi alteri quæstioni de motu aut statu terræ similiter affinis est. Nam si stellæ moveantur motu diurno circa terram, quandoquidem eæ universæ pari incitatione, et uno veluti spiritu agantur, (cumque in planetis plane constet prout variatur in sublimitate et humilitate situs, ita etiam variari in celeritate et tarditate motus,) probabile est stellas, velocitate cursus pares, etiam in una regione ætheris locari, cujus licet crassities sive profunditas ponatur esse magna, tamen non sit tanta ut faciat ad diserimen incitationis sive celeritatis in motu; sed ut per eam regionem universam omnia putentur, tanquam vinculo connaturalitatis devincta, pariter rotare, vel saltem eum discrepantia tali, quæ ad aspectum nostrum propter distantiam deferri non possit. Quod si terra moveatur, stellæ vel stare poterunt, quod Copernico placuit, aut, quod longe magis verisimile est, et a Gilberto introductum, illæ poterunt singulæ rotare super centrum suum in loco suo, absque aliquo motu centri sui, quemadmodum et ipsa terra, si modo illum motum diurnum terræ ab adscititiis illis duobus motibus, quos Copernicus superaddidit, sejungas. Utrumvis autem horum si fiat, nihil prohibet, quin stellæ aliæ supra alias sint donec aspectum nostrum effugiant. Quarta proponitur quæstio de nexu sive connexione systematis. Atque de natura et essentia corporis vel rei, quæ æther purus censetur, et astris interjacet, postea inquiremus. Nune tantum de cohærentia systematis dicemus. Ejus rei ratio est triplex. Aut enim datur vacuum, aut contiguum, aut continuum; itaque primo quæritur, an sit vacuum concervatum in spatiis interstellaribus? Id quod Gilbertus disserte posuit, atque etiam antiquorum nonnulli ex iis, qui globos spargi sine systemate opinati sunt, innuere videntur; præsertim ii, qui astrorum corpora compacta asseruere. Opinio talis est, globos universos, tam astra, quam terram, ex materia solida et densa constare. Illos autem in proximo circumdari genere quodam corporum, quæ sint ipsi globo aliquatenus connaturalia, sed tamen magis imperfecta, languida, et attenuata, quæque nil aliud sint, quam globorum ipsorum effluvia et emanationes; qualia sunt vapores et halitus, atque adeo aër ipse, si conferantur terræ: hæe effluvia ad distantiam circa unumquemque globum non magnam pertingere, reliquum intervallum (quod longe amplissimum est) inane esse. Cui opinioni illud fidem astruere possit, quod ex tam immensa distantia corpora astrorum conspiciuntur. Si enim universum illud spatium plenum esset, præsertim corporum, quæ proculdubio raritate et densitate valde inæqualia sunt, tanta foret radiorum refractio, ut ad visum nostrum pertingere non possint; eum si longe maxima ejus spatii pars vacua sit, facilius sane perferri consentaneum est. Atque revera hæc quæstio magna ex parte pendebit ex quæstione, quam statim adducemus de substantia stellarum, An sit densa, vel tenuis et explicata? Nam si substantia earum sit solida, videbitur utique natura circa globos eorumque confinia tantummodo fere occupata esse et solicita: spatia vero interjacentia deserere, et tanquam prætermittere. Itaque non absimile vero fuerit, globos circa centrum spissiores, circa superficiem laxiores, in ambientibus et effluviis quasi deficientes, in vacuo tandem terminari. Contra, si natura astrorum sit tenuis et flammea, apparebit naturam tenuis non esse solummodo densi decrementum, sed per se potentem et primariam, non minus quam naturam solidi, eamque et in stellis ipsis, et in æthere, et in aëre vigere, ut vacuo illo concervato non sit opus. Pendebit quoque ista quæstio de vacuo in spatiis interstellaribus ex quæstione illa, quæ pertinet ad principia naturæ. An detur vacuum. Neque tamen hoc ipsum nisi adhibita distinctione. Aliud enim est negare vacuum simpliciter, aliud negare vacuum coacervatum

Longe enim firmiores sunt eæ rationes, quæ adduci possunt ad astruendum vacuum intermistum ad laxamentum corporum, quam quæ asserunt vacuum coacervatum, sive in spatiis majoribus. Neque hoc solum vidit Hero, vir ingeniosus et mechanicus, sed etiam Lencippus et Democritus, inventores opinionis de vacuo, quam Aristoteles argutiis quibusdam obsidere et expugnare conatur; qui duo philosophi acutissimi certe et celeberrimi ita vacuum intermistum dant, ut vacuum coacervatum tollant. Ex sententia enim Democriti vacuum terminatur et circumscribitur, ut ultra certos fines non detur distractio sive divulsio corporum, non magis quam compulsio aut compactio. Licet enim in iis quæ ex Democrito habemus, hoc nunquam discrte positum sit, tamen hoc dicere videtur, cum corpora, æque ac spatia, infinita constituit; ea usus ratione aliter, (si spatium scilicet infinitum, corpora finita essent) corpora nunquam hæsura. Itaque propter co-infinitatem materiæ cum spatio necessario compingitur vacuum ad terminos certos, quæ videtur ejus fuisse opinio vera et recte intellecta, ut scilicet constituatur finis quidam explicationis sive expansionis corporum per vacuum copulatum; neque vacuum detur solitarium, aut corpore non obsessum.

Quod si non detur vacuum instar solutionis continuitatis in systemate, tamen cum tanta inveniatur in partibus et regionibus systematis corporum diversitas, ut sint tanquam alterius gentis et patriæ, oritur quæstio secunda quæ ad connexionem systematis pertineat; ea est, An æther purus sit unus perpetuus sive continuus fluor, an vero constet ex pluribus contiguis? Neque vero nostrum est de verbis argutari, sed intelligimus per contiguum, corpus quod superjacet nec miscetur: neque rursus intelligimus contignationem duram, qualem vulgus astronomorum comminiscitur, sed qualem possint recipere fluores, ac si argento vivo supernataret aqua, aquæ oleum, oleo aër. Nemini enim dubium esse potest, quin in immenso illo tractu ætheris puri sint eximiæ differentiæ quoad raritatem et densitatem, et alia non pauca; sed utrolibet dato (id est, continuo sive contiguo) hoc fieri potest. Nam satis constat, nec in mari ipso aquam in summo et aquam in imo ejusdem esse consistentiæ et saporis; in aëre vero, inter aërem terræ conterminum, et aërem superiorem plurimum interest, et tamen unus et integer est et perpetuus fluor. Itaque deducitur quæstio ad hoc, utrum differentiæ in tractu ætheris puri se insinuent gradatim et fluxu quodam continuo; an constituantur et distribuantur ad certos et notabiles limites, ubi corpora conjunguntur, quæ non sint commiscibilia, quemadmodum apud nos aër incumbit aquæ. Enimvero simplicius contemplanti videtur totum istud purum et liquidum corpus, in quo globi terræ et astrorum, tanquam in vastissimo pelago, pendent et natant, quodque interjunctum illis globis quanto ipso et spatio, quod occupat, globorum mensuras quasi innumeris partibus superat, esse indivisa quædam res et summe unita. Verum naturam diligentius intuenti illud plane constabit, consuesse naturam ad spatia nonnulla per gradus, deinde subito per saltus procedere, atque hunc processum alternare. Aliter si quis vere introspiciat, nulla possit constitui fabrica rerum, nulla figura organica, si per gradus insensibiles perpetuo procederetur. Itaque processus ille per gradus intermundiis competere possit, non mundo, ad cujus constructionem necesse est longe dissimilia discludi alia ab aliis, et tamen approximari. Itaque terram et aquas excipit et contingit aër, corpus longe diversum, et tamen in proximo locatum, non primo limus, deinde vapor, aut nebula, dein aër purus; sed confestim aër absque medio. In aëre vero et æthere (illa enim duo conjungimus) dispertitio maxime omnium insignis et radicalis sumi posse videtur ex natura magis aut minus susceptiva naturæ stellaris. Itaque tres secundum genera videntur esse regiones maximæ notabiles a globo terræ ad fastigia cœli; nimirum tractus aëris, tractus cœli planetarum, et tractus cœli stellati. Atque in infimo tractu natura stellaris non consistit; in medio consistit, sed coit ad globos singulos, in supremo spargit se per globos plurimos, adeo ut per summitates ejus videatur transire, quasi in empyreum integrum. Neque interim obliviscendum ejus quod paulo ante diximus, consuesse naturam processum graduatum et persultorium alternare, adeo ut regionis primæ confinia communicent cum secunda, et secundæ cum tertia. Nam et in aëre sublimiore, postquam aër cœperit esse ab effluviis terræ defæcatior, et a cœlestium magis attenuatus, tentat et experitur consistere flamma; ut in cometis humilioribus fit, qui sunt mediæ cujusdam naturæ inter naturam stellarem consistentem et evanidam; et rursus videtur cœlum circa solem fortasse stellescere et transire incipere in naturam cœli stellati. Nam possint illæ maculæ, quæ in sole observatione certe fida et diligenti deprehensæ sunt, esse rudimenta quædam materiæ stellaris: at in cœlo Jovis etiam stellæ absolutæ et perfectæ conspiciuntur, licet, propter parvitatem, absque commoditate perspicillorum invisibiles, et rursus in summitatibus cœli stellati ex innumeris micationibus ætheris inter stellas numeratas (cujus aliæ causæ satis frigidæ reddi solent) videtur natura stellaris magis fundi et continuari. Verum de his in quæstionibus, quas mox proponemus de substantia et astrorum et cœli interstellaris, plura dicemus. Hæc enim quæ diximus, pertinent tantum ad quæstiones de nexu systematis. Superest quinta quæstio de collocatione partium systematis, sive de ordine cœlorum. Atque dato quod non sit systema, sed sparguntur globi, aut dato quod sit systema, cujus sit centrum sol; aut etiamsi videant astronomi de aliquo novo systemate, tamen manet utique inquisitio, qui planeta ad alium planetam sit magis propinquus aut remotus; et similiter qui planeta magis aut minus elongetur a terra aut etiam a sole. Quod si recipiatur systema veterum, non videtur causa cur magnopere insistatur inquisitioni novæ de quatuor cœlis superioribus, stellarum fixarum scilicet, Saturni, Jovis, et Martis. Nam de eorum positura atque ordine et seculorum consensus suffragatur; nec phænomenon ullum adversatur; atque rationes motuum (unde sumitur de altitudinibus cœlorum præcipua probatio) accommodatæ sunt, et nusquam turbant. Verum de Sole, Venere, et Mercurio, et Luna etiam, secundum systema veterum dubitatum est ab antiquis; atque apud

recentiores quoque de Venere et Mercurio ambigitur, uter planeta sit altero superior. Nam pro Venere ut sit superior, stat illa ratio, quod tardius nonnihil movet, et pro Mercurio quod alligatur ad distantiam propiorem a sole, unde quis asserat debere eum proxime ad solem collocari. De luna vero nemo unquam dubitavit, quin locata sit proxime ad terram, licet variatum sit de appropinquatione ejus ad solem. Neque serio contemplantem fugere debet alind genus quæstionis, pertinens ad constitutionem systematis; hæc est, utrum planeta alter alterum per vices supergrediatur quandoque, et quandoque rursus subeat; id quod de Venere per demonstrationes quasdam non indiligentes evinci videtur, ut illa aliquando inveniatur super solem locata, aliquando subter. Atque omnino recte quæritur, utrum apogæum humilioris planetæ perigæum superioris non secet, ejusque fines subintret. Restat ultima quæstio de collocatione partium systematis, hoc est, utrum sint plura et diversa centra in systemate, et plures tanquam chorcæ, cum præsertim non solum terra primi mobilis, sol (ex sententia Tychonis) secundi mobilis, verum etiam Jupiter minorum et nuperorum illorum errorum ex Galilæo centrum constituatur. Atque hæ sunt quæstiones illæ quinque, quæ de systemate ipso proponendæ videntur, an sit videlicet systema, et quod sit centrum ejus, et quanta profunditas, et qualis nexus ejus, et quis ordo in collocatione partium.

De extimis vero cœli, et cœlo aliquo empyreo theses aut quæstiones non conficimus. Neque enim istarum rerum est historia, aut exstat phænomenon ullum. Itaque quæ de iis sciri possunt, ea per consecutionem tantum, ac nullatenus per inductionem sciri possunt. Erit igitur talis inquisitionis et tempus congruum, et ratio et motus quidam. De cœlis vero et spatiis immateriatis, religioni omnino standum et permittendum. Quæ enim a Platonicis, et nuper a Patritio (ut diviniores scilicet habeantur in philosophia) dicuntur non sine superstitione manifesta, et jactantia, et quasi mente turbata, denique ausu nimio, fructu nullo, similia Valentini iconibus et somniis; ea nos pro rebus commentitiis et levibus habemus. Nullo modo enim ferenda est moriæ apotheosis, tanquam Divi Claudii: quin pessimum est, et plane pestis et tabes intellectus, si vanis accedat veneratio.

CAPUT VII.

Sequuntur quæstiones de substantia cœlestium; qualis, videlicet, sit substantia cœlestium in genere comparata ad corpora sublunaria, et qualis substantia ætheris interstellaris comparata ad corpus stellæ; et qualis sit substantia astrorum ipsorum comparata ad invicem, et comparata ad ignem nostrum, et in natura propria; et qualis sit substantia galaxiæ, et maculanum nigrarum in hemisphærio antarctico. Tum proponitur quæstio prima, an sit heterogenea inter cœlestia et sublunaria, et qualis ea esse possit?

Absolutis quæstionibus de systemate, pergendum ad quæstiones de substantia cœlestium. Nam de substantia cœlestium inquirit præcipue philosophia, et de causis motus eorum: de motu ipso vero et ejus accidentibus astronomia: de influxu et potestate utraque. Debuerat autem esse cautum inter astronomiam et philosophiam, ut astronomia præferat hypotheses, quæ maxime expeditæ ad compendia calculorum; philosophia vero quæ proxime accedunt ad veritatem naturæ. Atque insuper, ut astronomiæ hypotheses ad commoditatem suam, rei veritati nullo modo præjudicent, vicissim ut philosophiæ decreta talia sint, quæ sint super phænomena astronomiæ omnino explicabilia. At nunc contra fit, videlicet ut astronomiæ figmenta in philosophiam invecta sint, eamque corruperint; et philosophorum speculationes circa cœlestia sibi tantum placeant, et astronomiam fere deserant, cœlestia generaliter intuentes, verum ad phænomena particularia atque eorum causas nullo modo se applicantes. Itaque cum utraque scientia (qualis nunc habetur) sit res levis et perfunctoria, fortius omnino figendus est pes; ac si ista duo, quæ propter angustas hominum contemplationes, et usum professorium, per tot secula disjungi consueverunt, una atque eadem res sint, atque in unum scientiæ corpus conflata. Itaque proponitur prima ea quæstio, an substantia cœlestium sit heterogenea ad substantiam inferiorum? Nam Aristotelis temeritas et cavillatio nobis cœlum peperit phantasticum, ex quinta essentia, experte mutationis, experte etiam caloris. Atque misso in præsenti sermone de quatuor elementis, quæ quinta essentia illa supponit, erat certe magnæ cujusdam fiduciæ, cognationem inter elementaria, quæ vocant, et cœlestia prorsus dirimere, cum duo ex elementis, aër videlicet et ignis, cum stellis et æthere tam bene conveniant, nisi quod moris erat illi viro ingenio abuti, et sibi ipsi negotium facessere, et obscuriora malle. Neque tamen dubium est quin regiones sub luna positæ et supra, una cum corporibus quæ sub iisdem spatiis continentur, multis et magnis rebus differant. Neque rursus hoc certius est, quam illud, corporibus utriusque regionis inesse complures communes inclinationes, passiones, et motus, ut, salva naturæ unitate, ista distinguere potius debeamus, quam discerpere. Quod vero attinet ad illam heterogeniæ partem, ut cœlestia ponantur æterna, inferiora corruptibilia; videtur sententia illa sub utraque parte fallere, quod nec cœlo ea competat æternitas, quam fingunt, neque terræ ea mutabilitas. Siquidem de terra vere rem reputanti, judicium minime faciendum ex illis quæ nobis sunt conspicua, cum nihil ex corporibus, quæ oculus humanus videt, erutum sit aut ejectum ex magis profundo, quam spatio fortasse trium milliarium ad plurimum; quod res nihili est, collatum ad ambitum globi terrestris universi. Itaque nihil obstat quin intima terræ pari prædita sint æternitate ac ipsum cœlum. Enimvero si terra patcretur mutationes in profundo, fieri non potest quin consequentiæ earum mutationum etiam in nostra regione, quam calcamus, majores casus parituræ fuissent, quam fieri videmus. Etenim earum, quæ nobis se dant conspiciendas, mutationum hic versus superficiem terræ ferc se ostendit quasi semper simul causa aliqua manifesta desuper imposita, ex tempestatibus cœli, per imbres, fervores, et similia, ut terra ipsa ex se et vi propria

nulli admodum mutationi causam præbere videatur. Quod si concedatur (quod certe verisimile est) etiam terram ipsam non solum cœlestia in regiones aeris agere, aut frigora exspirando, aut ventos emittendo, aut hujusmodi alia; tamen et ista omnis varietas referri potest ad regiones terræ ex propinquo, in quibus plurimas evenire mutationes et vices nemo sanus negaverit. Verum fatendum omnino est, ex phænomenis terræ longe maxime penetrare in profundum terræ-motus, et, quæ ejus sunt generis, eruptiones aquarum, eructationes ignium, hiatus et abruptiones terrarum, et similia; quæ tamen ipsa videntur non insurgere ex longinquo, cum plurima ipsorum parvum aliquod spatium in superficie terræ occupare soleant. Quanto enim latius spatium in facie terræ occupat terræ-motus, sive aliud quippiam hujusmodi, tanto magis radices et origines ejus ad viscera terræ penetrare putandum est; et quanto angustius, minus. Quod si quis afferat, fieri quandoque terræ-motus, qui amplos et spatiosos regionum tractus quatiant, prorsus ita est. At illi certe raro eveniunt, suntque ex casibus majoribus. Itaque æquiparari possunt cometis sublimioribus, qui et ipsi infrequentes sunt. Neque enim id agitur, ut terræ simpliciter asseratur æternitas, sed ut illud appareat (quod initio diximus) inter cœlum et terram, quatenus ad constantiam et mutationem, non multum interesse. Neque operæ pretium est argutari de æternitate ex rationibus motus, quemadmodum enim motus circularis terminis non indiget, ita nec quies; atque æque susceptivum est æternitatis, ut densa in loco et congregatione magna connaturalitatis suæ consistant, quam ut tenuia rotent: cum partes avulsæ amborum ferantur recta. Etiam illud in argumentum sumi potest, quod terræ interiora corruptioni magis obnoxia non sint, quam ipsum cœlum; quod ibi aliquid deperire solet, ubi aliquid refici potest. Cum vero imbres, et quæ de alto decidunt, quæ faciem superiorem terræ renovant, nullo modo penetrare possint ad interiora terræ, quæ tamen ipsa stant mole sua, et quanto suo; necessario fieri, ut nihil deperdatur, quando nihil adsit quod succedat. Postremo, mutabilitas, quæ in extimis terræ deprehenditur, videtur et ipsa per accidens esse. Nam incrustatio illa parva, quæ ad milliaria pauca deorsum extendi videtur (inter quos terminos præclaræ illæ officinæ et fabricæ, plantarum nempe et mineralium, concluduntur) nullam fere reciperent varietatem, multo minus tam pulchra et elaborata artificia, nisi ea pars terræ a cœlestibus pateretur et perpetuo vellicaretur. Quod si quis existimet calorem et vim activam solis et cœlestium universæ terræ crassitudinem transverberare posse; is superstitiosus et fanaticus censeri possit; cum liquido pateat quam parvo objectu ea retundi et cohiberi possint. Atque de constantia terræ hactenus: videndum jam de mutabilitate cœlestium.

Primo igitur non ea utendum est ratione, mutationes in cœlo non fieri, quia sub aspectum nostrum non veniunt. Aspectum enim frustat et loci distantia, et lucis sive excessus sive defectus, et corporis subtilitas aut parvitas; neque enim scilicet si oculus in circulo lunæ positus esset, hic quæ apud nos in superficie terræ fiunt mutationes, veluti inundationes, terræ-motus, ædificia, structuras aut moles, cernere posset; quæ parvæ festucæ rationem non exæquant ad tantam distantiam. Neque ex eo, quod cœlum interstellare diaphanum sit, et stellæ noctibus serenis eædem numero et facie cernuntur, quis facile pronunciet universum corpus ætheris limpidum, purum, et immutabile esse. Nam et aër innumeras varietates suscipit, æstus, frigoris, odorum, et omnigenæ misturæ cum vaporibus subtilioribus; neque propterea exuit diaphanum; similiter nec imagini aut faciei illi cœli credendum. Nam si magnæ illæ nubium moles, quæ cœlum interdum involvunt, et solis et astrorum conspectum tollunt a nobis, propter propinquitatem ipsarum ad visum nostrum, in superioribus cœli partibus penderent, neutiquam illæ faciem cœli sereni mutarent: nam nec ipsæ cerni possent propter distantiam, nec ullam eclipsin facere in astris, propter corporum parvitatem respectu magnitudinis astrorum. Quin et corpus ipsum lunæ, nisi qua parte lumen excipit, faciem cœli non mutat, ut si lumen illud abesset, tantum corpus nos latere plane posset. At contra liquido patet ex massis corporum, quæ mole et magnitudine spatiorum distantiam vincere, et propter materiam luminosam aut splendidam visum nostrum lacessere possint, admirandas in cœlo accidere mutationes atque insolentias. Id enim perspicitur in cometis sublimioribus, iis nimirum, qui et figuram stellæ induerunt absque coma, neque solum ex doctrina parallaxium supra lunam collocati esse probantur, sed configurationem etiam certam et constantem cum stellis fixis habuerunt, et stationes suas servarunt, neque errones fuerunt; quales ætas nostra non semel vidit; primo in Cassiopea, iterum non ita pridem in Ophiucho. Quod vero hujusmodi constantia, quæ conspicitur in cometis, fiat ob sequacitatem ad aliquod astrum, quæ Aristotelis opinio fuit, qui similem rationem esse posuit cometæ ad astrum unicum, et galaxiæ ad astra congregata (utrumque falso) id jam olim explosum est, non sine nota ingenii Aristotelis, qui levi contemplatione hujusmodi res confingere ausus est. Neque vero ista mutatio in cœlestibus circa stellas novas locum tenet solummodo in iis stellis, quæ videntur esse naturæ evanidæ, sed etiam in iis, quæ morantur. Nam et in stella illa nova Hipparchi, apparitionis mentio facta est apud veteres, disparitionis nequaquam. Etiam conspici nuper cœpit stella nova in pectore Cygni, quæ jam per duodecim annos integros duravit, ætatem cometæ (qualis habetur) longo intervallo supergressa, nec adhuc diminuta aut adornans fugam. Neque illud rursus proprium et perpetuum est, ut veteres stellæ mutationem prorsus non patiantur, sed tantum stellæ recentioris epiphaniæ, in quibus nil mirum si mutatio eveniat, cum ipsa generatio et origo ipsarum immemorialis non sit. Missa enim Arcadum fabula de prima epiphania lunæ, qua se jactant illi fuisse antiquiores, non desunt exempla in rerum memoria satis fida, cum sol per tres vices, absque incidentia eclipsis, aut interpositione nubium, aëre liquido et sereno prodiit vultu mutato per multos dies, neque tamen similiter affectus, semel luce exili, bis subfusca. Talia enim evenerunt anno DCCXC, per septemdecim dies, et temporibus Justiniani per annum dimidium,

et post mortem Julii Cæsaris per complures dies. Atque Julianæ illius obtenebrationis manet testimonium illud insigne Virgilii:

> "Ille etiam extincto miseratus Cæsare Romam,
> Cum caput obscura nitidum ferrugine texit,
> Impiaque æternam timuerunt secula noctem."

Varronis vero, hominis in antiquitate peritissimi, narratio quæ invenitur apud Augustinum de stella Veneris: illam scilicet tempore Ogygis regis mutavisse colorem, magnitudinem, et figuram, dubiæ fidei esse potuit, ni simile eventum celebri spectaculo ætate nostra MDLXXVIII reeurrisset. Nam tum quoque per annum integrum novatio facta est memorabilis in stella Veneris, quæ conspiciebatur magnitudine et splendore insolitis, rubedine Martem ipsum superabat, et figuram sæpius mutabat, facta quandoque triangularis, quandoque quadrangularis, etiam rotunda, ut in ipsa massa et substantia prorsus pati videretur. Quin etiam stella illa ex veteribus, quæ in coxa Caniculæ sita est, quam ipse se vidisse dicit Aristoteles, comæ nonnihil habentem, eamque comam præsertim obiter intuenti vibrantem, mutata jam videtur et comam deposuisse, cum nihil ejusmodi jam nostra ætate deprehendatur. Adde etiam quod complures mutationes cœlestium, præsertim in stellis minoribus, ex neglectu observationum facile præterlabuntur, et nobis pereunt. At promptum erit sciolo alicui ista ad vapores et dispositionem medii referre: sed mutationes, quæ corpus astri alicujus constanter et æquabiliter et diu obsidere deprehenduntur, et una cum astro circumvolvi; omnino in astro ipso, aut saltem in æthere propinquo statui debent, non in regionibus aëris inferioribus; cujus rei etiam argumentum sumitur plane validum, quod hujusmodi mutationes raro fiunt, et longis intervallis annorum; quæ autem in aëre fiunt per interpositionem vaporum, frequentius. Quod si quis judicium faciat ex ordine cœli, atque motus ipsius æquabilitate, cœlum immutabile esse, atque certitudinem illam periodorum et restitutionum sumat in æternitatis tesseram non dubiam, cum substantiæ corruptibili vix competere videatur motus constantia; is paulo attentius dispicere debuerat, istam reditionem rerum per vices, et tanquam in orbem per tempora certa, etiam hic infra apud nos reperiri in nonnullis; maxime in æstu oceani: differentiæ autem minores, quæ in cœlestibus esse possunt, ut periodis, et restitutionibus suis, aspectum nostrum et computationes nostras fugiunt. Neque magis motus ille circularis cœli in argumentum æternitatis sumi potest; quod scilicet lationis circularis non sit terminus; motus autem immortalis substantiæ immortali convenit. Nam etiam cometæ inferiores, subter lunam locati, rotant, idque ex vi propria; nisi quis forte credere malit commentum illud de alligatione ad astrum. Enimvero si placeat argumentari de æternitate cœlestium ex motu circulari, id ad universitatem cœli trahi debuit, non ad partes cœli; etenim aër, mare, terra, massis æterna, partibus caduca. Quin potius, contra, non ita bene ominari licet de æternitate cœli ex motu illo rotationis; quia ille ipse motus non est perfectus in cœlo, nec restituit se exacte in circulo integro et puro, sed cum declinationibus, sinuationibus, et spiris. Porro si quis illud, quod diximus de terra, retorqueat (videlicet quod mutationes, quæ in ea fiunt, per accidens fieri disseruimus, eo quod terra patiatur a cœlo) atque asserat contrariam esse rationem cœli, cum cœlum nullo modo pati possit vicissim a terra, quandoquidem omnis emissio a terra citra cœlum desinat, ut probabile sit cœlum, ultra omnem vim inimicam sepositum, susceptivum esse æternitatis, cum a natura opposita minime concutiatur aut labefactetur; is non contemnenda quædam objicit. Neque enim ii sumus, qui Thaletis simplicitatem revereamur, qui ignes cœlestes depascere vapores e terra et oceano sublimatos, atque inde ali et refici opinatus est, (illi vero vapores recidunt fere simili quanto ac ascenderunt, neque reficiendis et terræ et globis cœlestibus ullo modo sufficiunt, neque prorsus in tam altum pervenire possint,) sed tamen utcunque terræ effluvia materiata longe infra cœlum se sistant, nihilominus, si terra sit primum frigidum, ex sententia Parmenidis et Telesii, non facile quis affirmet, aut certo, ad quam altitudinem vis illa adversatrix et rivalis cœli se insinuet seriatim et per successionem, præsertim cum tenuia natoram et impressionem frigidi et calidi imbibant, et longe perferant. Sed tamen dato quod cœlum non patiatur a terra; nil obstat, quin cœlestia a se invicem pati possent et immutari, sol nimirum a stellis, stellæ a sole, planetæ ab utrisque, universæ ab æthere circumfuso, præsertim in desinentiis globorum. Præterea videtur opinio de æternitate cœli magnas vires sumpsisse ex ipsa machina et constructione cœli, quam astronomi plurima cum satagentia introduxerunt. Cautum enim magnopere videtur ex ea ut cœlestia nil patiantur, præter simplicem rotationem, in cæteris consistant nec perturbentur. Itaque corpora astrorum in orbibus suis tanquam clavis fixa posuerunt. Singulis autem declinationibus, sublationibus, depressionibus, sinuationibus ipsorum tot circulos perfectos convenientis erassitudinis attribuerunt, circulorum eorum et concava et convexa egregie tornantes et polientes, ut in eis nil eminens, nil asperum inveniatur, sed alter inter alterum receptus, et ob lævorem exacte contignus, et tamen labi facilis moveat placide et feliciter, quæ immortalis scilicet ingeniatio summovet omnem violentiam et perturbationem, individuas profecto corruptionis prænuntias. Nam certe si corpora tanta, qualia sunt globi astrorum, æthera secant, neque tamen perpetuo meant per easdem ætheris partes, sed per partes et tractus longe diversos, cum aliquando superna invadant, aliquando versus terram descendant, aliquando vertant se ad austrum, aliquando ad boream, periculum est proculdubio ne fiant plurimæ in cœlo impressiones, et concussiones, et reciprocationes, et fluctus, atque inde sequantur condensationes et rarefactiones corporum, quæ generationibus et alterationibus viam præstinent et præstruant. Quandoquidem vero ex rationibus physicis, atque insuper ex phænomenis ipsis plane constabit hoc posterius verum esse, atque commenta illa priora astronomorum de quibus diximus (si quis sanam mentem sumat) naturæ prorsus illudere videantur, et rerum reperiantur inania: consentaneum est, ut etiam opinio de æternitate cœlestium, quæ cum illis conjuncta est, idem subeat judicium. Quod si quis hic religionem opponat, illi

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responsum volumus, ethnicam jactantiam tantummodo istam æternitntem cœlo soli attribuere, Scripturss sacras æternitatem terræ et cœlo ex æquo. Neque enim legitur solum, "solem et lunam æternos et fideles testes in cœlo esse," sed et illud, "generationes advenire et migrare, terram autem in æternum manere." De natura autem labili et caducn utriusque uno simul oraculo conclusum est: "cœlum et terram pertransire;" "verbum autem Domini non pertransire." Deinde, si quis adhuc instet, negnri tamen non posse, quin in ipsa superficie orbis terrnrum, et partibus proximis, iafinitæ fiant mutatioaes, in eœlo non item; huic ita occurrimus; nec nos hæc per omnia æquare, et tamen si regiones (quas vocant) superiorem et mediam aëris, pro superficie aut interiore tunica cœli accipiamus, quemadmodum spatium istud apud aos, quo animalia, plantæ, et mineralia continentur, pro superficie vel exteriore tunicn terræ accipimus; et ibi qnoque varias et multiformes generntiones inveniri. Itaque tumultus fere omnis, et conflictus, et pertnrbatio in confiniis tantum cœli et terræ locum habere videtur; ut in rebus civilibus fit, in quibus illud frequenter usu venit, ut duurum regnorum fines continais incursionibus et violentiis infestentur, dum interiores utriusque regni provinciæ diutina pace fruuntur, et bellis tantum gravioribus et rarioribus commoventur. Quod vero ad illam alteram partem heterogeneæ cœlestium attinet (prout asseritur ab Aristotele) quod calida non sint, ae forte sequntur conflagratio Heracliti, sed quod calefaciant per accidens, conterendo et diverberando aërem, nescimus quid sibi velit hujusmodi desertor experientiæ, idque contrn consensum veterum. Sed in illo minime novum est, ut nnam aliqnid ab experientia abripiat, et statim naturæ insultet, pusillanimus simul et audax. Verum de hoc inox dicemus in quæstione, utrum astra sint veri ignes? fusius vero et accuratius in consiliis nostris circa historiam virtutum, ubi origines et cunabula ealidi et frigidi tractabimus, mortalibus adhuc incognita et intacta. Atque quæstio de heterogenea cœlestinm ad hunc modum proposita sit. Damnare enim sententiam Aristotelis nbsqne comperendinatione res fortasse postulat, sed nostrum non patitur institutum.

Altera proponitur quæstio, Quale sit contentum spatiorum insterstellarium? Illa enim aut vacua sunt, quod Gilbertus sensit, nnt repleta corpore, quod sit ad astra instar aëris ad flammam; quod familiariter accedit sd sensum; vel repleta corpore homogeneo cum ipsis astris, lucido et quodammodo empyreo, sed secundum minus, lucis scilicet non tam præfulgidæ et vibrantis: id quod sibi velle videtur recepta opinio, quod stella sit pars densior sphæræ suæ. Nihil auteai officit quo minus lucidum sit diaphanum ad transmittendam lucem magis fortem. Nam acute notavit Telesius etiam aërem communem contiaere aliquid in sc lucis, eo usus argumento, qaod sint quædam animalia, quæ noctu vident, quorum scilicet visus ad tenuem hujusmodi lucem recipiendam et fovendam sit proportionatus. Nnm actum lucis absque ulla luce, vel ex ipsa spiritus visivi luce interna fieri minus credibile esse. Sed et flnmma ipsa diaphana conspicitur, etiam ad transmittendam speciem corporis opaci, ut in filis lucernarum patet; multo magis ad transmittendam speciem lucis intensioris. Etiam ex flammis aliæ aliis sunt pellucidiores. Idque accidit vel ex natura corporis inflammati, vel ex copia. Nnm flamma scvi aut ceræ magis luminosa est, et (si ita loqui licet) mngis ignea, nt flamma spiritus vini magis opaca, et tanquam aërea, præsertim si in parva sit quantitate, ut flamma scipsam non inspisset. At nos hujus rei etiam experimentum fecimus; videlicet accipientes candelnm ceream, eamque in situln erigentes (situla idcirco usi metallica, ut corpus candelæ a flamma, quæ circumfundenda erat, posset muniri) situlnm vero in patera, ubi erat parum spiritus vini, collocantes, tumque primo candelam, deinde spiritum vini nccendentes; ubi facile emt cernere flammam candelæ coruscantem et cnndidam per medium flammæ spiritus vini infirmæ et vergentis ad dinphanum. Atque pari rntione cernuntur sæpius per cœlum trabes lucidæ lucem manifestnm ex se præbentes, et tenebras noctis insigniter illustrantes; per qunrum corpom tamen datur conspicere astra. Attamen ista iaæqualitas stellæ et ætheris interstellaris aon bene definitur per tenue et densum, ut stelln scilicet sit densior, æther tenuior. Nnm generaliter hic apud nos flamma aëre est corpus subtilius, magis, inquam, expansum, et minus habens materiæ pro spatio quod occupat; quod etiam in cœlestibus obtiaere probabile est. Durior vero est error, si stellam sphæræ partem esse intelligant veluti clavo fixam, et æthera stellæ deferens. Hoc enim fictitium quiddam est, quemadmodum et orbium contiguatio illa quæ describitar. Nam corpus stellæ in cursu suo aut æthera secat, aut ut æther ipse rotnt simul æqualiter. Si enim inæqualiter rotet, etinm stellam secare æthera necesse est. Fnbrica autem illa orbium contiguorum, ut concavum exterioris orbis recipiat convexum interioris, et tnmen, propter lævorem utriusque, alter alterum in conversionibus suis, licet inæqualibus, nnn impediat, renlis non est; cum perpetuum et eontinuum sit corpus ætheris, quemadmodam et aëris; et tamen quia magna reperiatur in utroque corpore diversitas, quatenus ad raritatem et alia, regiones ipsorum docendi gmtia rectissime distinguantur. Itaque recipintur sextn quæstio secundum haac nostram explicationem. Sequitur quæstio altera nec ea simplex; de substantia ipsorum astrorum. Primo enim quæritur, An sint alii globi sive massæ ex materia solida et compacta, præter ipsam terram? Sana enim mente proponitur ea contemplatio in libro de facie in orbe lunæ, non esse verisimile, in dispersione materiæ naturam quicquid compacti corporis erat in unicum terræ globum conclusisse, eum tantas sit exercitus globorum ex mnteria rara et explicata. Huic vero eogitationi tnm immoderate indulsit Gilbertus (in quo tamen habuit præcursores vel duces potius nunnullos ex nntiquis) ut non solnm terram et lunam, sed complures alios globos, solidos et opacos, per expansionem cœli inter globos lucentes, sparsos asserat. Neque opinio ejus hic stetit, sed et globos illos lucentes ad aspectum, nimirum solem et clarissima quæque astra, ex materia quapiam solida, licet mngis splendida et æquali, constitui existimavit, lucem primitivam eum

lumine, quod ejus censetur imago, confundens, (nam et nostrum mare ex sese lucem ad distans proportionatum ejaculari censuit,) nullam autem conglobationem agnovit Gilbertus, nisi in materia solida, cujus corpora illa circumfusa rara et tenuia, effluvia quædam tantum essent, et tanquam defectiones; et deinde vacuum. Verum diligentissimi cujusque et maxime sobrii investigatoris naturæ animum perstringere posset cogitatio illa de luna, quod sit ex materia solida. Nam et lucem reverberat, nec lucem transmittit, et propriæ lucis tanquam expers est, et plena est inæqualitatis; quæ omnia solidorum sunt. Videmus enim æthera ipsum et aërem, quæ tenuia sunt corpora, solis lucem excipere, sed minime reflectere, quod luna facit. Solis vero radiorum is est vigor, ut densas admodum nubes, quæ materiæ sunt aqueæ, trajicere et penetrare possit; lunam tamen neutiquam. At lux lunæ ipsius in eclipsibus aliquibus cernitur nonnulla licet obscura; in noviluniis autem et æstatibus lunæ, nulla, præter partem irradiatam a sole. Porro, flammæ impuræ et fæculentæ (ex quo genere substantiæ Empedocles constare lunam opinatus est) sunt certe inæquales, sed tamen eæ inæqualitates non locantur, sed mobiles plerumque sunt; eum maculæ in luna constantes putentur. Accedit quoque quod maculæ illæ etiam suas subinæqualitates habere deprehendantur per speculla optica, ut jam plane multiplicitcr figurata reperiatur luna, et selenographia illa sive typus lunæ, quem animo agitabat Gilbertus, jam ex Galilæi et aliorum industria præsto esse videatur. Quod si luna ex materia quapiam solida constitui possit ut terræ affinis, aut fæx cœli (hujusmodi quædam jactantur) videndum rursus an illa sit in hoc genere sola. Nam et Mercurius quandoque repertus est in conjunctione solis, tanquam macula quædam, sive pusilla eclipsis. At maculæ illæ nigricantes, quæ in hemisphærio antarctico inveniuntur, suntque fixæ, non secus ac galaxia, majorem injiciunt dubitationem de globis opacis, etiam in partibus cœli sublimioribus. Nam quod illud in causa sit, quia cœlum in illis locis sit tenue et tanquam perforatum, id minus verisimile est; propterea quod hujusmodi decrementum et tanquam privatio rei visibilis ex tanta distantia visum nostrum nullo modo pereutere possit, cum etiam reliquum corpus ætheris invisibile sit, nec nisi per comparationem ad corpora stellarum cernatur. Illud fortasse magis probabile foret, nigrores illos luminis imputare, quia rariores inveniuntur stellæ circa eam partem cœli, quemadmodum circa galaxiam crebriores; ut alter locus continenter luminosus videatur, alter umbrosus. Magis enim committi videntur ignes cœlestes in antarctico hemisphærio, quam in nostro; majores siquidem stellas habeat, sed pauciores, et spatia interstellaria majora. Verum ipsa traditio de maculis illis non admodum fida est, saltem non tam magna circa eam observationem adhibita est diligentia, ut consequentiæ inde deduci adhuc debeant. Illud magis premit inquisitionem præsentem, quod possint esse plures globi opaci per æthera sparsi, qui omnino non cernuntur. Nam et luna ipsa in primis ortibus, quatenus illustratur a sole, visum sane ferit, cornu et labro illo tenui circuli extimi, in profundo autem minime, sed cernitur eadem specie tanquam reliquus æther: et stellulæ illæ erraticæ circa Jovem a Galilæo (si fides constet) repertæ, merguntur ad visum nostrum in pelago illo ætheris, tanquam insulæ minores et non conspicuæ; similiter et illæ stellulæ, quarum glomeratio effecit galaxiam, si singulæ sparsim, non congregatæ confertim, collocatæ essent, prorsus conspectum nostrum effugerent; quemadmodum et complures aliæ, quæ noctibus serenis, præsertim per hiemem, micant; etiam nebulosæ illæ stellæ sive foramina ad præsepe jam distinctæ per specilla numerantur; quin per eadem specilla in fonte lucis omnium purissimo (solem dicimus) macularum, et opaci, et inæqualitatis scrupulus nonnullus objectus esse videtur. Quod si nihil aliud, certe gradatio ipsa inter astra cœlestia quoad lucem, a clarissimis descendens et pertingens ad obscura et caliginosa, eo rem dedueit, ut fidem faciat posse esse et globos omnino opacos. Minor enim gradus esse videtur a stella nebulosa ad opacam, quam a stella clarissima ad nebulosam. Aspectus autem noster plane fallitur et circumscribitur. Quicquid enim spargitur in cœlo, neque habet magnitudinem insignem, atque etiam lucem vividam et fortem, latet, nec faciem cœli mutat. Neque vero imperiti cujusquam animum percellat, si in dubium veniat utrum globi ex materia compacta pensiles sisti possint. Nam et terra ipsa in medio aëris, rei mollissimæ, circumfusi pensilis natat: et magnæ nubium aquosarum moles et grandinis congeries hærent in regionibus aëris, et inde magis dejiciuntur, quam descendunt, antequam terræ vicinitatem persentiscant. Itaque optime notavit Gilbertus, corpora gravia post longam a terra distantiam motum versus inferiora paulatim exuere, utpote qui a nullo alio corporum appetitu, quam illo coëundi et se congregandi ad terram (quæ est corporum cum iisdem connaturalium massa) ortum habet, atque intra orbem virtutis suæ terminatur. Nam quod ds motu ad terræ centrum asseritur, esset profecto virtuosum genus nihili, quod tanta ad se raperet; neque corpus nisi a corpore patitur. Itaque quæstio ista de globis opacis et solidis, licet nova et ad opiniones vulgares durior recipiatur; atque una conjungatur quæstio illa vetus, nec tamen decisa, Quæ ex astris lucem promant primitivam, atque ex sese? et Quæ rursus ex illustratione solis, quarum altera consubstantialia videntur soli, altera lunæ? Denique omnem inquisitionem de diversitate substantiæ astrorum ad invicem, quæ multifaria videtur, eum alia rutila, alia plumbea, alia candida, alia splendida, alia nebulosa manifesto et constanter cernantur, ad septimam quæstionem intelligimus referri. Altera quæstio ea est, An astra sint veri ignes? quæ tamen quæstio desiderat prudentiam quandam intelligendi. Aliud est enim dicere, astra esse veros ignes; aliud, astra (sint licet veri ignes) cunctas exercere vires atque easdem edere actiones, quas ignis communis. Neque propterea ad ignem aliquem notionalem aut phantasticum deveniendum est, qui nomen ignis retineat, proprietates abnegat. Nam et noster ignis, si in tali quanto, quale est quantum astri, in æthere collocaretur, differentes daturus fuerit operationes ab iis, quæ reperiuntur hic apud nos; enm entia longe diversas nanciscantur virtutes, et ex quanto

suo et ex consitu sive collocatione sua. Etenim massæ majores, hoc est, corpora connaturalia, quæ congregantur in tali quanto, quod habeat analogiam ad summam universi, induunt virtutes cosmicas, quæ in portionibus suis nullatenus reperiuntur. Nam oceanus, qui est aquarum congregatio maxima, fluit et refluit; at stagna et lacus, minime. Similiter universa terra pendet, portio terræ cadit. Collocatio autem entis plurimi ad omnia momenti est et in portionibus majoribus et minoribus, propter contigua et adjacentia, vel amica vel inimica. At multo majorem etiam evenire necesse est actionum diversitatem inter ignem astrorum et nostrum, quia non tantum in quanto et collocatione, sed etiam in substantia, aliquatenus varietur. Ignis enim astrorum purus, integer, et nativus; at ignis noster degener, qui tanquam Vulcanus in terram dejectus ex casu claudicat. Si quis enim advertat, habemus ignem apud nos extra locum suum, trepidum, contrariis circumfusum, indigum, et stipem alimenti, ut conservetur, emendicantem, et fugientem. At in cœlo existit ignis vere locatus, ab impetu alicujus contrarii disjunctus, constans ex se, et similibus conservatus, et proprias operationes libere et absque molestia peragens. Itaque nihil opus fuit Patritio, ut formam flammæ pyramidalem, qualis apud nos invenitur, salvaret, comminisci superiorem partum astri, quæ versus æthera vertitur, posse esse pyramidalem, licet inferior pars, quæ a nobis conspicitur, sit globosa. Nam pyramis illa flammæ per accidens est ex coactione et constrictione aëris, siquidem flamma circa fomitem suum plenior, ab inimicitia aëris sensim constringitur et effingitur in formam pyramidis. Itaque in flamma, basis flammæ lata est, vertex acutus; in fumo, contra, inferius acutum, vertex latus, et tanquam pyramis inversa; quia aër fumum recipit, flammam comprimit. Quare consentaneum est flammam apud nos esse pyramidalem, in cœlo globosam. Similiter et flamma apud nos corpus momentaneum est, in æthere permanens et durabilis. Attamen et apud nos flamma et ipsa manere possit in forma sua et subsistere, nisi a circumfusis perderetur, quod manifestissimum est in flammis majoribus. Omnis enim portio flammæ, in medio flammæ sita, et flamma undique circumdata, non perit, sed eadem numero manet inextincta, et cœlum rapide petens; at in lateribus laboratur atque abinde oritur extinctio. Cujus rei modus (flammæ interioris scilicet permanentia in figura globosa, et flammæ exterioris vanescentia et pyramis) in flammis bicoloribus experimento demonstrari possit. Quin etiam de ipso ardore flammæ inter cœlestem et nostram plurimum variari potest. Nam flamma cœlestis libenter et placide explicatur, tanquam in suo, at nostra tanquam in alieno compingitur et ardet et furit. Omnis etiam ignis constipatus, et incarceratus, fit ardentior. Enimvero et radii flammæ cœlestis postquam ad corpora densiora et magis obstinata pervenerint, et ipsi lenitatem suam deponunt, et fiunt magis adurentes. Itaque non debuit Aristoteles conflagrationem Heracliti orbi suo metuere, licet astra veros ignes statuisset. Poterit igitur ista quæstio recipi secundum hanc explicationem. Sequitur altera quæstio, An astra alantur atque etiam an augeantur, minuantur, generentur, exstinguuntur? Atque certe ex veteribus aliquis observatione quadam plebeia ali astra putavit, instar ignis, atque aquas et oceanum et humiditatem terræ depascere, atque ex vaporibus et halitibus reparari. Quæ certe opinio non videtur digna esse, ut quæstioni materiam subministret. Nam et vapores hujusmodi longe citra astrorum altitudines deficiunt. Neque illorum tanta est copia, ut et aquis et terræ per pluvias et rores reparandis, atque insuper tot et tantis globis cœlestibus reficiendis sufficere ullo modo queant; præsertim cum manifestum sit terram et oceanum humore evidenter per multa jam secula non decrescere, ut tantundem reponi videatur, quantum exsorbetur. Neque etiam ratio alimenti astris tanquam igni nostro competit. Ubi enim aliquid deperit et decedit, ibi etiam reponitur quippiam et assimilatur. Quod genus assimilationis ex tartarismis est, et ex contrariorum aut dissimilium circumfusione ortum ducit. At in astrorum mole similari et interiore nil tale evenit non magis, quam in visceribus terræ, quæ nec ipsa aluntur, sed substantiam suam servant secundum identitatem, non secundum assimilationem. Attamen de extimis oris corporum sidereorum recte datur quæstio, Utrum ea uno eodemque tenore maneant, aut æthera circumfusum deprædentur, atque etiam inficiant? Quare eo sensu de alimoniis astrorum etiam quæri poterit. De augmentis vero et dimioutionibus astrorum in toto suo, recte adjungitur quæstio; licet rara admodum fuerint phænomena, quæ illi dubitationi occasionem præbere possint. Primo enim exemplum nullum, neque simile aliquid inter ea, quæ apud nos reperiuntur, huic quæstioni patrocinantur; cum globus noster terræ et aquarum non videatur suscipere, secundum totum suum, augmentationem aut diminutionem evidentem aut insignem; sed molem suam et quantum suum servare. At stellæ apparent ad aspectum nostrum interdum majore, interdum minore corpore. Verum est, sed illa majoritas et minoritas stellæ vel ad longinquitatem et ad vicinitatem refertur, ut in apogæis et perigæis planetarum, vel ad constitutionem medii. Quæ vero fit ex constitutione medii facile dignoscitur, quod non alicui certæ stellæ, sed omnibus ex æquo apparentiam mutet, ut fit noctibus hiemalibus, gelu intensiore, quando stellæ anctæ videntur magnitudine, quia vapores et parcius surgunt et fortius exprimuntur, et universum corpus aëris nonnihil condensatur, et vergit ad aqueum sive crystallinum, quod species exhibet majores. Quod si forte fuerit aliqua particularis interpositio vaporum inter aspectum nostrum et astrum certum, quæ speciem astri ampliet, (quod in sole et luna frequenter et manifesto fit, et in reliquis accidere potest,) ea apparentia nec ipsa fallere potest, quia mutatio illa magnitudinis non durat, neque sequitur astrum, nec cum corpore ejus movetur, verum astrum ab ea cito liberatur, et solitam recuperat speciem. Veruntamen quamvis ista ita se habeant, tamen eum et olim temporibus priscis, atque etiam ætate nostra, celebri et magno spectaculo magna novatio facta fuerit in stella Veneris et magnitudine et colore, atque etiam figura; eumque mutatio, quæ astrum aliquod certum perpetuo et constanter sequitur, et eum corpore ejus cir-

cumvolvi cernitur, necessario statui debeat in astro ipso, et non in medio; cumque ex observationum neglectu multa, quæ in cælo fiunt conspicua, prætereantur et nobis pereant; istam partem quæstionis nonæ recte admitti censemus. Ejusdem generis est altera pars quæstionis, Utrum astra per longos seculorum circuitus nascantur et dissipentur? nisi quod major suppetat phænomenorum ubertas, quæ hanc quæstionem provocat, quam illam de augmentis; sed tamen in uno genere tantum. Nam quoad veteres stellas, omni seculorum memoria nec alicujus earum ortus primus notatus est, (exceptis iis, quæ Arcades de luna olim fabulati sunt,) nec aliqua ex iis desideratur. Earum vero, quæ cometæ habitæ sunt, sed forma et motu stellari, et prorsus veluti stellæ novæ, et apparitiones vidimus, atque etiam ab antiquis accepimus, et disparitiones, dum aliis hominibus tanquam consumptæ visæ sunt, aliis tanquam assumptæ, (utpote quæ ad nos devectæ tanquam in perigæis, postea ad sublimiora remearunt,) aliis vero tanquam rarescentes existimatæ sunt, atque in æthera solutæ. Verum universam quæstionem de stellis novis ad eum locum rejicimus, ubi de cometis dicemus. Superest quæstio altera, de galaxia videlicet, An galaxia sit glomeratio astrorum minimorum, aut corpus continuatum, et pars ætheris, mediæ naturæ inter æthereum et siderenm? Nam opinio illa de exhalationibus jamdiu exhalavit, non sine nota ingenii Aristotelis, qui tale aliquid confingere ausus est, rei tam constanti et fixæ imponendo naturam transitoriam et variam. Quin et finis etiam hujus quæstionis, prout a nobis proponitur, adesse jam videtur, si iis credimus, quæ Galilæus tradidit, qui confusam illam lucis speciem in astra numerata et locata digessit. Nam quod galaxia non tollit aspectum astrorum, quæ intra ipsam inveniuntur, illud certe litem non dirimit, nec rem inclinat in alterutram partem; id tantummodo fortasse abnegat, non collocari galaxiam inferius æthere stellato. Hoc enim si foret, atque insuper corpus illud continuatum galaxiæ aliquam haberet profanditatem, aspectum nostrum interceptum iri consentaneum esset. Si vero pari collocetur altitudine cum stellis, quæ per eam conspiciantur, nil obstat quin stellæ spargi possint in ipsa galaxia non minus, quam in reliquo æthere. Itaque et istam quæstionem recipimus. Atque hæ sex quæstiones pertinent ad substantiam cœlestium; qualis scilicet sit substantia cœli in genere, et qualis ætheris interstellaris, et qualis galaxiæ, et qualis astrorum ipsorum, sive conferantur ad invicem, sive ad ignem nostrum, sive ad corpus proprium. At de numero, magnitudine, figura, et distantia astrorum præter phænomena ipsa et quæstiones historicas, de quibus postea dicetur, problemata philosophica fere simplicia sunt. De numero scilicet sequitur quæstio altera, An is sit numerus astrorum qui videtur, quique Hipparchi diligentia notatus et descriptus est, et in globi cœlestis modulum conclusus? Nam et satis frigida est ratio ea, quæ redditur innumeræ illius multitudinis stellarum occultarum et tanquam invisibilium, quæ noctibus serenis præsertim per hiemem conspici solet; ut illæ apparentiæ scilicet sint non stellæ minores, sed radiationes tantum, et micationes, et tanquam spicula stellarum cognitarum; et nova jam censa sunt plebecolæ cœlestis capita a Galilæo non solum in illa turma, quæ galaxiæ nomine insignitur, verum etiam inter stationes ipsas et ordines planetarum. Stellæ autem invisibiles fiant aut propter corporis parvitatem, aut propter opacitatem, (nam tenuitatis nomen non admodum approbamus, cum flamma pura sit corpus eximiæ tenuitatis,) aut propter elongationem et distantiam. De auctario autem numeri astrorum per generationem stellarum novarum, quæstionem, ut prius, ad locum de cometis rejicimus. Quod vero ad magnitudinem astrorum attinet, ea, quæ est secundum apparentiam, magnitudo pertinet ad phænomena, vera autem ad inquisitionem philosophicam, solo illo contenta problemate duodecimo: Quæ sit vera magnitudo cujusque astri, vel mensurata, vel saltem collata? Facilius enim est inventu et demonstratu, globum lunæ esse globo terræ minorem, quam globum lunæ in ambitu tot millia passuum continere. Itaque tentandum et contendendum, ut exactæ magnitudines inveniantur; illæ si minus haberi possint, utendum comparatis. Capiuntur autem atque concluduntur magnitudines veræ vel ab eclipsibus et umbris vel ab extensionibus tam luminis quam aliarum virtutum, quas corpora quæque pro ratione magnitudinis longius aut propius ejaculantur et diffundunt; vel postremo per symmetriam universi, quæ portiones corporum connaturalium ex necessitate quadam temperat et terminat. Minime vero standum iis, quæ ab astronomis de veris magnitudinibus astrorum tradita sunt (licet videatur esse res magnæ et accuratæ subtilitatis) satis licenter et incaute; sed exquirendæ (si quæ se offeradunt) probationes magis fidæ et sinceræ. Magnitudo vero et distantia astrorum se invicem indicant ex rationibus opticis; quæ tamen et ipsæ excuti debent. Ista autem de vera magnitudine astrorum quæstio numero duodecima est. Sequitur quæstio altera de figura, An astra sint globi, hoc est, coacervationes materiæ in figura solida rotunda? Videntur autem ad apparentiam tres se ostendere figuræ astrorum, globosa et crinita, ut sol; globosa et angulata, ut stellæ (crines vero et anguli ad aspectum tantum referuntur, forma globosa tantum ad substantiam); globosa simpliciter, ut luna. Neque enim conspicitur stella oblonga, aut triangularis, aut quadrata, aut alterius figuræ. Atque secundum naturam videtur ut massæ rerum majores, ad conservationem sui et veriorem unionem, se congregent in globos. Decima quarta quæstio pertinet ad distantiam; Quæ sit vera distantia alicujus stellæ in profundo cœli? Nam distantiæ planetarum tam ad invicem quam cum stellis fixis laterales, sive per ambitum cœli, reguntur a motibus earum. Quemadmodum autem superius de magnitudine astrorum diximus, si exacta magnitudo et plane mensurata haberi non possit, utendum esse magnitudine comparata; idem de distantiis præcipimus; ut si exacte capi distantia non possit (exempli gratia a terra ad Saturnum, vel ad Jovem) tamen ponatur in certo Saturnum esse Jove sublimiorem. Neque enim systema cœli quoad interius, scilicet ordo planetarum quoad altitudines, omnino sine controversia est, neque quæ nunc obti-

nuerunt, olim credita sunt. Atque etiam adhue lis pendet de Mercurio et Venere, utra sit sublimior. Inveniuntur autem distantiæ aut ex parallaxibus, aut ex eclipsibus, aut ex rationibus motuum, aut ex apparentiis diversis magnitudinum. Etiam alia auxilia huic rei comparanda sunt, quæ humana queat industria comminisci. Præterea crassitudines sive profunditates sphærarum pertinent etiam ad distantias.

THEMA CŒLI.

Cum vero tanta reperiantur undequaque incommoda, satis habendum si asseratur quippiam, quod minus durum sit. Constituemus itaque et nos thema universi, pro modo historiæ, quæ nobis haetenus cognita est, omnia integra servantes judicio nostro, postquam historia et per historiam philosophia nostra inductiva magis adulta sit. Proponemus autem primo quædam de materia cœlestium, unde motus et constructio ipsorum melius intelligi possit, postea de motu ipso (quod nunc præcipue agitur) quæ cogitata et visa nobis sunt proferemus. Videtur itaque natura rerum in dispertitione materiæ disclusisse tenuia a crassis, atque globum terræ crassis, omnia vero ab ipsa superficie terræ et aquarum ad ultima cœli usque tenuibus sive pneumatieis assignasse, tanquam geminis rerum classibus primariis, non æquis scilicet, sed convenientibus portionibus. Neque vero vel aqua in nubibus hærens, vel ventus in terra conclusus naturalem et propriam rerum collocationem confundit. Hæc vero differentia tenuis vel pneumatiei, et crassi vel tangibilis, omnino primordialis est, et ea qua maxime utitur systema universi. Sumpta autem est ex rerum conditione omnium simplicissima, hoc est, copia et paucitate materiæ pro exporrectione sua. Pneumatica vero, quæ hic apud nos inveninntur, (de iis loquimur, quæ simplicia et perfecta existunt, non composita et imperfecte mixta,) sunt plane illa duo corpora, aër et flamma. Ea vero ut corpora plane heterogenea ponenda sunt, non, ut vulgo putatur, quod flamma nil aliud sit, quam aër incensus. His vero respondent in superioribus natura ætherea et siderea, sicut et in inferioribus aqua et oleum, et magis in profundo mercurius et sulphur, et generaliter corpora eruda et pinguia, vel aliter corpora flammam exhorrentia et concipientia (sales vero compositæ naturæ sunt ex partibus crudis simul et inflammabilibus). Latæ vero duæ magnæ rerum familiæ, aërea et flammea, videndum quo fœdere universi partem longe maximam occupaverint, et quas partes habeant in systemate. In aëre terræ proximo flamma vivit tantum vitam momentaneam, et affatim perit. Postquam autem aër ceperit esse ab effluviis terra defœntior et bene attenuatus, natura flammæ per varios casus tentat et experitur in aëre consistere, et quandoque acquirit durationem nonnullam, non ex successione, ut apud nos, sed in identitate; quod in aliquibus cometis humilioribus ad tempus obtinet, quæ sunt mediæ fere naturæ inter flammam successivam et consistentem; non tamen figitur aut constat flammea natura, antequam perventum fuerit ad corpus lunæ. Eo loco flamma extinguibile illud deponit, et se tuetur utcunque, sed tamen infirma et sine vigore est ejusmodi flamma, et parum habens radiationis, nec propria natura vivida, nec a contraria natura admodum exeitata. Etiam integra non est, sed ex compositione cum substantia ætherea (qualis ibi invenitur) maculosa et interpolata. Neque in regione Mercurii admodum feliciter collocata est flamma, cum ex coadunatione sua parvum tantummodo planetam confieere potis sit, eumque cum magna et perturbata varietate et fluctu motuum, tanquam ignem fatuum laborantem et conflictantem, nec se a solis præsidiis, nisi per parva spatia, disjungi sustinentem. Atque postquam ad regionem Veneris est ventum, incipit roborari flammea natura et clarescere, et in globum bene amplum congregari; qui tamen et ipse famulatur soli, et longius ab eo recedere exhorret. In solis autem regione tanquam in solio collocatur flamma: media inter flammas planetarum, fortior etiam et vibrantior quam flammæ fixarum propter majorem antiperistasin, et intensissimam unionem. At flamma in regione Martis etiam robusta cernitur, solis vicinitatem rutilatione referens, sed jam sui juris, et quæ per integrum cœli diametrum se a sole disjungi patiatur. In regione autem Jovis flamma contentionem paulatim deponens, magis placida videtur et candida, non tam ex natura propria, (ut stella Veneris, quippe ardentior,) sed ex natura circumfusa minus irritata et exasperata; in qua regione verisimile est illud, quod reperit Galilæus, cœlum incipere stellescere, licet per stellas parvitate sua invisibiles. In Saturni autem regione rursus natura flammæ videtur nonnihil langnescere et hebescere, utpote et a solis auxiliis longius remota, et a cœlo stellato in proximo exhausta. Postremo flammea et siderea natura, ætheream naturæ victrix, cœlum dat stellatum, ex natura ætherea et siderea, (quemadmodum globus terræ ex continenti et aquis,) varie aparsis conflatum, versa tamen et subacta atque adeo assimilata substantia ætherea, ut sidereæ sit prorsus patiens et subserviens. Itaque tres reperiuntur a terra ad fastigia cœli regiones generales, et tria tanquam tabulata, quoad naturam flammeam. Regio extinctionis flammæ; regio coadunationis flammæ; et regio dispersionis flammæ. Atque de contiguo et continno argutari in corporibus mollibus et fluoribus, plebeium omnino foret. Illud tamen intelligendum, consuesse naturam ad spatia quædam per gradus, deinde subito per saltus proce-

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dere, atque hujusmodi processum alternare; aliter nulla posset fieri fabrica, si per gradus insensibiles perpetuo procederetur. Quantus enim saltus (quoad explicationem materiæ) a terra et aqua ad aërem vel maxime crassum et nebulosum? Atque hæc tamen natura tam distantia corpora loco et superficie conjunguntur, sine medio aut intervallo. Nec minor saltus (quoad naturam substantialem) a regione aëris ad regionem lunæ, ingens similiter a cœlo lunæ ad cœlum stellatum. Itaque si quis continuum et contiguum acceperit non ex modo nexus, sed ex diversitate corporum connexorum, tres illas, quas diximus, regiones in limitibus suis pro contiguis tantum haberi queant. Jam vero videndum liquido et perspicue, hæc nostra de substantiis systematis theoria, quæ et qualia neget, et quæ et qualia affirmet, ut facilius teneri vel destrui possit. Negat illud vulgatum, flammam esse aërem incensum; affirmando corpora illa duo, aërem et flammam, plane esse heterogenea, instar aquæ et olei, sulphuris et mercurii. Negat vacuum illud conservatum Gilberti inter globos sparsos, sed spatia vel aërea vel flammea natura repleri. Negat lunam esse corpus aqueum, vel densum vel solidum, sed ex natura flammea, licet lenta, et enervi, primum scilicet rudimentum et sedimentum ultimum flammæ cœlestis; eum flamma (secundum densitatem) non minus quam aër et liquores, in numeros recipiat gradus. Affirmat, flammam vere et libenter locatam figi et constare, non minus quam aërem vel aquam, nec esse rem momentaneam et successivam tantum in mole sua, per renovationem et alimentum, ut hic fit apud nos. Affirmat flammam habere naturam coitivam vel congregativam in globos, quemadmodum natura terrea, minime similem aëri et aquæ, quæ congregantur in orbibus et interstitiis globorum, sed nusquam in globos integros. Affirmat, eandem naturam flammeam in loco proprio (id est) cœlo stellato spargi glomerationibus infinitis, ita tamen ut non exuatur dualitas illa, ætheris et sideris, nec continuetur flamma in empyreum integrum. Affirmat, sidera veras flammas esse, sed actiones flammæ in cœlestibus neutiquam trahendas ad actiones flammæ nostræ, quarum pleræque per accidens tantum perfunguntur. Affirmat ætherem interstellarem et sidera habere rationes ad invicem aëris et flammæ, sed sublimatas et rectificatas. Atque de substantia thematis sive systematis universi, hujusmodi quædam occurrunt. Nunc de motibus cœlestium dicendum, cujus gratia hæc adduximus. Consentaneum videtur ut quies non tollatur e natura, secundum aliquod totum (nam de particulis nunc non est sermo). Hoc (missis argutiis dialecticis et mathematicis) ex eo maxime liquet, quod ineitationes et celeritates motuum cœlestium remittant se per gradus, ut desituræ in aliquod immobile, et quod etiam cœlestia participant ex quiete secundum polos; et quod, si tollatur immobile, dissolvitur et spargitur systema. Quod si sit conservatio quædam et massa naturæ immobilis, non videtur ulterius quærendum, quin ea sit globus terræ. Compactio enim densa et arctata materiæ inducit dispositionem erga motum torpescentem et eversam; quemadmodum contra explicatio laxa, promptam vel habilem. Neque male introducta est a Telesio (qui instauravit philosophiam Parmenidis et disputationes in libro de primo frigido) in naturam non certe coëssentialitas et conjugatio, (quod ille vult,) sed tamen affinitas et conspiratio, videlicet ex altera parte, calidi, lucidi, tenuis, et mobilis: et, ex parte opposita, frigidi, opaci, densi, et immobilis; ponendo sedem primæ conspirationis in cœlo, secundæ in terra. Quod si ponatur quies et immobile, videtur etiam poni debere motus absque termino et summe mobile, maxime in naturis oppositis. Is motus est fere rotationis, qualis invenitur in genere in cœlestibus. Agitatio enim in circulo terminum non habet, et videtur manare ex appetitu corporis, quod movet solummodo ut moveat, et se sequatur, et proprios petat amplexus, et naturam suam excitet, eaque fruatur, et propriam operationem exerceat; eum contra, latio in recta, itineraria videatur, et movere ad terminum cessationis, sive quietis, et ut aliquid assequatur, et dein motum suum deponat. Itaque de motu isto rotationis, qui est motus verus et perennis, et cœlestibus vulgo putatur proprius, videndum quomodo se expediat, et quo moderamine se ineltet, et frænet, et qualia omnino patiatur. Quæ dum explicamus, formositatem illam mathematicam, (ut motus reducantur ad circulos perfectos, sive excentricos, sive concentricos,) et magniloquium illud, (quod terra sit respectu cœli instar puncti, non instar quanti,) et complura alia astronomorum inventa commentitia, ad calculos et tabulas relegabimus. At primo motus cœlestium dividemus: alii cosmici sunt, alii ad invicem. Eos dicimus cosmicos, quos cœlestia ex consensu non cœlestium tantum, sed universitatis rerum nanciscuntur. Eos ad invicem, in quibus alia corpora cœlestia ex aliis pendent. Atque vera et necessaria est ista divisio. Terra itaque stante, (id enim nunc nobis videtur verius,) manifestum est cœlum motu diurno circumferri, cujus motus mensura est spatium viginti quatuor horarum vel circiter; consequentia autem ab oriente in occidentem; conversio super puncta certa, (quos polos vocant,) australe et boreale. Etenim non jactantur cœli super polos mobiles, nec rursus alia sunt puncta quam quæ diximus. Atque hic motus vere videtur cosmicus, atque ideo unicus, nisi quatenus recipit et decrementa et declinationes; secundum quæ decrementa et declinationes transverberat motus iste universum rerum mobilium, et permeat a cœlo stellato usque ad viscera et interiora terræ; non raptu aliquo prehensivo, aut vexativo, sed consensu perpetuo. Atque iste motus in cœlo stellato perfectus est et integer, tam mensura justa temporis, quam restitutione plena loci. Quanto autem decreditur e sublimi, tanto iste motus imperfectior est, respectu tarditatis, et respectu etiam aberrationis a motu circulari. Ac primo de tarditate dicendum separatim. Affirmamus Saturnum motu diurno tardius moveri, quam ut circumferatur aut restituatur ad idem punctum intra viginti quatuor horas; sed cœlum stellatum incitatius ferri, et prævertere Saturnum eo excessu, qui intra tot dies, quot annos conficiunt triginta, universo cœli ambitui respondeat. Similiter de reliquis planetis dicendum, pro diversitate periodorum cujusque planetæ; adeo ut motus diurnus cœli stellati (in ipsa periodo,

absque respectu ad magnitudinem circuli) sit fere per horam unam velocior, quam motus diurnus lunæ. Si enim luna cursum suum viginti quatuor diebus posset expedire, tum excessus ille horæ integræ foret. Itaque motus decantatus adversitatis et renitentiæ ab occidente in orientem, qui attribuitur planetis tanquam proprius, verus non est, sed tantum per apparentiam, ex prænrsione cœli stellati occidentem versus, et relictione a tergo planetarum versus orientem. Quo posito, manifestum est velocitatem istius motus cosmici, ordine non perturbato, descendendo decrescere, ut quo propius quique planeta appropinquet ad terram, eo tardius moveat; eum recepta opinio ordinem perturbet et invertat: et motum proprium tribuendo planetis, in illud absurdum incidat, nt planetæ, quo propinqniores siut ad terram (quæ est sedes naturæ immobilis) eo velocius moveri ponsntur, id quod per remissionem violentiæ primi mobilis, astronomi excusare nugatorie et infeliciter conantur. Quod si cui mirum videatur, tantis spatiis, quanta sunt a cœlo stellato ad lunam, motum istum tam parvis partibus, minus scilicet hora una, quæ est motus dinrni pars vigesima quarta, decrescere; succurrit illud, quod singuli planetæ minores circulos, quo terræ propiores sint, conficiant, et breviore ambitu rotent; nt, addito decremento magnitudinis circuli ad decrementum temporis sive periodi, motus iste insigniter decrescere cernatur. Atque hactenus de velocitate seorsum locuti sumus, perinde ac si planetæ positi (exempli gratia, sub æquinoctio, aut aliquo ex parallelis) snteverterentur tantum a cœlo stellato, et ab invicem, sed tamen sub eodem illo circulo. Hæc enim simplex foret relictio absque obliquitate. At manifestum est planetas non solum impari gradu contendere, sed nec ad idem punctum circuli reverti, verum deflectere versus austrum et boream, cujus deflectionis limites sunt tropici; quæ deflectio nobis circulum obliquum, et diversam politatem ejus progenuit; qnemadmodum illa celeritatis inæqualitas motum illum renitentiæ. Neque vero hoc etiam commento naturæ rerum opus est, eum recipiendo lineas spirales (id quod proxime accedit ad sensum et factum) res transigatur, et ista salventur. Atque (quod caput rei est) spiræ istæ nil aliud sunt qnam defectiones a motu circulari perfecto, cujus planetæ sunt impatientes. Prout enim substantiæ degenerant puritate et explicatione, ita degenerant et motus. Evenit autem, quemadmodum in celeritate sublimiores planetæ feruntur velocius, humiliores tardius; ita etiam ut sublimiores planetæ propiores conficiant spiras, quæque circulos propius referant; humiliores vero, spiras magis disjunctas et hiantes. Deceditur enim perpetuo descendendo magis ac magis, et a flore illo velocitatis, et a perfectione motus circularis, ordine nusquam perturbato. In eo tamen planetæ conspirant (utpote corpora multum retinentia naturæ communis, licet aliter differentia) nt habeant eosdem limites deflexionis. Neque enim Saturnus intra tropicos remeat, neque luna extra tropicos exspatiatur, (et tamen de exspatiatione stellæ Veneris non negligendum quod ab aliquibus traditum et notatum est,) sed universi planetæ, sive sublimiores, sive humiliores, postquam ad tropicos perventum est, se vertunt et retexunt, pertæsi minoris spiræ, qualis snbennda foret, si polis magis appropinquarent; eamque jacturam motus, veluti destructionem naturæ suæ, exhorrentes. Utcunque enim in cœlo stellato et stellæ prope polos, et stellæ circa æquinoctium, ordines et stationes suas servant, aliæ ab aliis in ordinem redactæ, summa et æquabili constantia; planetæ nihilominus videntur esse hujusmodi mixtæ naturæ, ut nec breviorem gyrum omnino, nec ampliorem libenter ferant. Atque ista videntur nobis paulo meliora circa motus cœlestes, quam raptus et motuum repugnantia, et diversa politas zodiaci, et inversus ordo celeritatis, et hujusmodi, quæ nullo modo eum natura rerum conveniunt, licet pacem qualem qualem colant cum calculis. Neque ista non viderunt astronomi præstantiores, sed arti snæ intenti, et circa perfectos circulos inepti, et subtilitates captantes, et philosophiæ malum morigeri, naturam sequi contempserunt. Verum istud sapientium arbitrium imperiosum in naturam, est ipsa vulgi simplicitate et credulitate deterius; si quis manifesta, qnia sunt manifesta, fastidit. Et tamen ingens est illud malum, et latissime patet, ut ingenium humanum, eum par rebus esse non possit, supra res esse malit. Jam vero inquirendum ntrum motus iste unicus et simplex, in circulo et spira, ab oriente in occidentem, super polos certos australem et borealem, desinat et terminetur cum cœlo, an etiam deducatur ad inferiora? Neque enim liberum erit hujusmodi placita confingere hic in proximo, qualia supponunt in cœlestibus. Itaque si in his regionibus quoque reperiatur ille motus, apparebit etiam in cœlo eum talem esse secundum naturam communem sive cosmicam; qualem nos illam experimur. Primo itaque plane constat, illum cœli terminis non contineri. Verum hujusce rei demonstrationes et evidentias in anticipatione nostra de fluxu et refluxu maris plene tractavimus; itaque ad illam homines rejicimus; et hoc veluti posito et concesso, ad reliquos motus cœlestium pergemus. Eos autem non cosmicos, sed ad invicem esse diximus. Quatuor sunt genera motuum in cœlestibus visibilium, præter eum quem diximus cosmicum, qui est motus diurnus per spiras intra tropicos. Aut enim attolluntur stellæ altius, et rursus dimittuntur humilius, ut sint longius et propius a terra: aut flectunt se et sinuant per latitudinem zodiaci, excurrendo magis ad austrum, aut magis ad boream, atque efficiendo eos, quos vocant, dracones: aut incitatione atque etiam consecutione motus (hæc enim duo conjungimus) variant; gradiendo aliquando celerius, aliquando tardius, aliquando in progressu, aliquando in regressu; aliquando etiam stando et morando, aut ad distantiam aliquam a sole magis aut minus alligantur et circumscribuntur. Horum causas et naturas reddemus tantum in genere et per capita: id enim hoc loco nostrum postulat institutum. Verum ad hoc nt viam præmuniamus et aperiamus, dicendum aperte quid sentiamus de quibusdam tam placitis philosophicis quam hypothesibus astronomicis, et de observationibus etiam astronomorum per varia secula, ex quibus artem suam instaurant; quæ omnia videntur nobis esse erroris et confusionis plena. Sunt itaque axiomata, sive potius placita nonnulla, quæ a philosophis accepta, et in

astronomiam translata, et male credita, artem corruperunt. Simplex autem erit rejectio et judicium nostrum; neque enim tempus refutationibus terere convenit. Horum primum est, quod omnia supra lunam inclusive sint incorruptibilia, neque novas generationes aut mutationes ullo modo patiantur: de quo alibi dictum est, quod sit superstitio et vaniloquium. Verum ex hoc fonte illud ingens malum, quod ex omni anomalia novas atque, ut putant, emendatas confingant astronomi theorias, et rebus sæpius tanquam fortuitis applicant causas æternas et invariabiles. Secundum est, quod cœlo (cum sit scilicet ex essentia quinta et minime elementari) non competant actiones illæ turbulentæ, compressionis, relaxationis, repulsionis, cessionis, et similium, quæ videntur progigni a molitia quadam corporum et duritia, quæ habentur pro qualitatibus elementaribus. Hæc vero assertio est abnegatio insolens et licentiosa rerum et sensus. Ubicunque enim corpus naturale positum sit, ibi est antitypia quoque, idque pro modo corporis. Ubicunque vero corpora naturalia, et motus localis, ibi vel repulsio, vel cessio, vel sectio; hæc enim, quæ dicta sunt, compressio, relaxatio, repulsio, cessio, cum multis aliis, sunt passiones materiæ catholicæ ubique locorum. Attamen ex hoc fonte nobis emanavit illa multiplicatio circulorum perplexorum ad libitum, quos tamen volunt ita et consignari inter se, et alios intra alios moveri et verti, tanto lævore et lubricitate, ut nulla nihilominus sit impeditio, nulla fluctuatio; quæ omnia phantastica plane sunt et rebus insultant. Tertium est, quod singulis corporibus naturalibus singuli competant motus proprii; et si plures inveniantur motus, omnes, excepto uno, sint aliunde, et ex movente aliquo separato. Quo falsius quicquid nec excogitari potest, cum universa corpora ex multiplici rerum consensu motibus etiam pluribus prædita sint, aliis dominantibus, aliis succumbentibus, aliis etiam latentibus nisi provocentur; proprii autem rerum motus nulli sint nisi mensuræ exactæ, et modi motuum communium. Atque hinc rursus nobis prodiit primum mobile separatum, et cœli super cœlos, et inædificationes novæ continentur, ut motuum tam diversorum præstationibus sufficere possint. Quartum est, quod omnes motus cœlestium dispensentur per circulos perfectos; quod onerosum valde est, et portenta illa eccentricorum et epicyclorum nobis peperit; cum tamen, si naturam consuluissent, motus ordinatus et uniformis sit circuli perfecti; motus vero ordinatus, sed multiformis, qualis invenitur in cœlestibus compluribus, sit aliorum linearum; meritoque Gilbertus hæc deridet, quod non verisimile sit naturam confinxisse rotas, quæ, exempli gratia, in circuitu contineant milliare unum aut alterum, ad hoc ut feratur pila palmaris. Tantulæ enim magnitudinis videtur esse corpus planetæ ad eos, quos ad deferendum illud fingunt, circulos. Quintum est, quod stellæ sint partes orbis sui tanquam clavo fixæ. Hoc vero evidentissime est commentum eorum, qui mathemata, non naturam tractant, atque motum corporum tantum stupide intuentes, substantiarum omnino obliviscuntur. Ista enim fixatio, particularis est affectus rerum compactarum et consistentium, quæ firmas habent prehensiones ub pressuras partium. Inopinabile autem prorsus est si transferatur ad mollia vel liquida. Sextum est, quod stella sit densior pars orbis sui; illæ vero neque partes sunt, neque densiores. Non enim homogenea sunt cum æthere, et gradu tantum, sed plane heterogenea, et substantia differunt; atque ea quoque substantia quoad densitatem rarior est, et magis explicata quam ætherea. Sunt et alia complura placita ejusdem vanitatis; sed hæc ad id, quod agitur, sufficient. Atque hæc de placitis philosophiæ circa cœlestia dicta sint. Quod vero ad hypotheses astronomorum attinet, inutilis fere est earum redargutio, quæ nec ipsæ pro veris asseruntur, et possint esse variæ, et inter se contrariæ, ut tamen phænomena æque salvent, et concinnent. Itaque sit cautum, si placet, inter astronomiam et philosophiam, tanquam fœdere convenienti et legitimo, ut scilicet astronomia præhabeat hypotheses, quæ maxime expeditæ sunt ad compendia computandi, philosophia eas, quæ proxime accedunt ad veritatem naturæ, atque ut astronomiæ hypotheses rei veritati non præjudicent, et philosophiæ decreta talia sint, quæ sint super phænomena astronomiæ explicabilia. Atque de hypothesibus ita esto. At de observationibus astronomicis, quæ accumulantur assiduc, quæque jugiter a cœlo tanquam aquæ scaturiunt, illud omnino hominos monitos volumus; ne forte de illis verum sit, quod eleganter fingitur de musca Æsopi, quæ sedens super temonem currus Olympici; "Quantum," inquit, "pulverem ego excito!" Ita observatio aliqua pusilla, eaque quandoque instrumento, quandoque oculo, quandoque calculo titubans, quæque possit esse propter veram aliquam in cœlo mutationem, novos cœlos, et novas sphæras, et circulos excitat. Neque hæc eo dicimus, quod remitti debeat aliqua industria observationum et historiæ, quam omnibus modis scuendam et intendendam esse dicimus, sed tantummodo ut adhibeatur prudentia, et summa, et sedata judicii maturitas, in abjiciendis aut mutandis hypothesibus. Itaque patefacta jam via de motibus ipsis dicemus pauca et in genere. Quatuor autem genera esse diximus motuum majorum in cœlestibus. Motum per profundum cœli attollentem et demittentem; motum per latitudinem zodiaci exspatiantem ad austrum et boream; motum per consequentiam zodiaci citum, tardum, progressivum, retrogradum, stationarium; et motum elongationis a sole. Neque objiciat quispiam, motum illum secundum latitudinis, sive draconum, potuisse referri ad motum illum magnum cosmicum, cum sit inclinatio alternans versus austrum et boream, quod et spiræ illæ de tropico in tropicum similiter sunt, nisi quod ille motus sit tantum spiralis, iste vero etiam sinuosus et minoribus multo intervallis. Neque enim hoc nos fugit. Sed plane non sinit constans et perpetuus motus solis in ecliptica absque latitudine et draconibus, qui tamen sol communicat cum cæteris planetis quoad spiras inter tropicos, nos in hac opinione versari. Itaque alii fontes et hujus et reliquorum trium motuum quærendi sunt. Atque hæc sunt illa, quæ circa motus cœlestium nobis videntur minus habere incommodi. Videndum vero quid negent, et quid affirment. Negant terram rotare. Negant esse in cœlestibus duos motus ab oriente in occiden-

tem alterum; atque affirmant anteversionem et relictionem. Negant obliquum circulum et diversam politatem ejus; et affirmant spiras. Negant primum mobile separatum et raptum; et affirmant consensum cosmicum tanquam commune vinculum systematis. Affirmant motum diurnum inveniri non in cœlo, sed et in aëre, aquis, etiam extimis terræ, quoad verticitatem. Affirmant consecutionem et volubilitatem illam cosmicam in fluidis esse verticitatem et directionem in consistentibus, usquequo perveniatur ad immobile sincerum. Negant stellas figi tanquam nodos in tabula. Negant eccentricos, epicyclos, et hujusmodi fabricas esse reales. Affirmant motum magneticom sive congregativum vigere in astris, ex quo ignis ignem evocat et attollit. Affirmant in cœlis planetarum, corpora planetarum velocius moveri et rotare, quam reliquom cœli, in quo siti sunt, quod utique rotat, sed tardius. Affirmant ex ea inæqualitate fluctus, et undas, et reciprocationes ætheris planetarum, atque ex iis varios motus educi. Affirmant necessitatem in planetis volvendi celerius et tardius, prout locantur in cœlo sublimius aut humilius, idque ex consensu universi. Sed simul affirmant tædium præternaturalis incitationis in planetis, et majoris et minoris circuli. Affirmant solisequium ex natura inopinosa in ignibus infirmioribus Veneris et Mercurii; eum etiam inventæ sint a Galilæo stellulæ errantes Jovis asseclæ. Ista autem nos tanquam in limine historiæ naturalis et philosophiæ stantes prospicimus, quæ quanto quis magis se immerserit in historiam naturalem, tanto fortasse probabit magis. Attamen testamur iterum nos hic teneri nolle. In his enim, ut in aliis, certi viæ nostræ sumus, certi sedis nostræ non sumus. Hæc vero interfati sumus, ne quis existimet nos vacillatione judicii, aut inopia affirmandi negativas quæstiones malle. Itaque tenebimus, quemadmodum cœlestia solent, (quando de iis sermo sit,) nobilem constantiam.

PARTIS INSTAURATIONIS SECUNDÆ

DELINEATIO ET ARGUMENTUM.

Memores* autem instituti nostri, omnia perspicue proponemus, atque ordine non perturbato. Pateat itaque hujus partis destinatio et distributio. Destinatur huic parti doctrina de melinre ac perfectiore usu rationis, quam hue usque hominibus sit cognitus aut monstratus, eo consilio, ut per hoc intellectus humanos (quantum conditio mortalitatis recipit) exaltetur, et facultate amplificetur ad naturæ obscuritatem vincendam, et interpretandam. Namque ipsi interpretationi naturæ attribuuntur libri tres; tertius, quartus, et sextus; siquidem quintus, qui ex anticipationibus est secundum usum rationis communem, ad tempus tantum sumitur, et deinceps postquam figi cœperit, atque ex usu rationis legitimo verificari, et transfertur, et commigrat in sextum. Huic vero libro secundo committitur intellectus ipse, ejusque cura et regimen, omuisque apparatus, atque instructio ad veram rationis administrationem conducens, describitur. Atque licet nomen ipsum logicæ, sive dialecticæ, propter depravationes, apud nos ingratum fere sonet, tamen ut hnmines per consueta tanqnam mann ducamus, est certe ars ea, quam adducimus, ex genere logicæ, quæ et ipsa (vnlgaris inqnam) auxilia et præsidia intellectu parat et molitur. Differt autem nostra a lngica vulgari, tum aliis rebus, tum præcipue tribus; videlicet initiis inquirendi, ordine demonstrandi, atque fine et officio. Nam et inquisitionis initium altius sumit, ea subjiciendo examini, quæ logica vulgaris veluti ex fide aliena, et auctoritate cæca recipit; principia, notiones primas, atque ipsas informationes sensus, et ordinem demonstrandi plane invertit, propositiones et axiomata ab historia et particularibus ad generalia, per scalam adscensoriam, continenter subvehendo et excitando, non protinus ad principia, et magis generalia advolando, atque ab illis medias propositiones deducendo et derivando. Finis autem hujus scientiæ est, ut res et opera, non argumenta et rationes probabiles, inveniantur et judicentur. Quare institutum hujus libri secundi hujusmodi est. Nunc distribntionem ejusdem similiter proponemus. Quemadmodum in generatione luminis requiritnr, ut corpus lumen receepturum poliatur, atque deinde in debito ad lucem situ sive conversione ponatur, antequam lucis ipsius fiat immissio; prorsus ita est operandum. Primo enim mentis area æquanda, et liberanda ab eis, quæ hactenus rceepta sunt; tum conversio mentis bona et congrua facienda est ad ea, quæ afferuntur; postremo menti præparatæ informatio exhibenda. Atque pars destruens triplex est, secundum triplicem naturam idolorum, quæ mentem obsident. Illa enim aut adscititia sunt, idque dupliciter; nimirum quæ immigrarunt in mentem eamque occuparunt, vel ex philosophorum placitis atque sectis; vel rursus ex perversis legibus et rationibus demonstrationum; aut ea quæ menti ipsi et substantiæ ejus inhærentia sunt atque innata. Sicut enim speculum inæquale veros rerum radius ex sectione propria immutat: ita et mens, quando a rebus per sensum patitur, in motibus suis expediendis,

* In priori editione *Delineationem* hanc et *Argumentum* præcesserat tractatus, cui titulus, *Indicia vera de Interpretatione Naturæ*, quem, cum nullus alius sit quam *Novi Organi præfatio*, noluimus hic loci repetere.

haudquaquam optima fide, rerum naturæ suam naturam inserit et immiscet. Itaque primus imponitur labor, ut omnis ista militia theoriarum, quæ tantas dedit pugnas, mittatur ac relegetur. Accedit labor secundus, ut mens a pravis demonstrationum vinculis solvatur. Hunc excipit tertius, ut vis ista mentis seductoria coërceatur, atque idola innata vel evellantur, vel, si evelli non possint, ita tamen indicentur, atque pernoscantur, ut variationes restitui possint. Inutilis enim et fortasse damnosa fuerit errorum in philosophiis demolitio et destructio, si ex prava complexione mentis novi errorum surculi, et fortasse magis degeneres, pullulaverint; neque prius absistendum, quam omnis spes præcidatur, ex usu rationis communi, aut ex vulgaris logicæ præsidiis et auxiliis, philosophiæ absolvendæ, aut majorem in modum amplificandæ; ne forte errores non abjiciamus, sed permutemus. Itaque pars ista, quam destruentem appellamus, tribus redargutionibus absolvitur; redargutione philosophiarum; redargutione demonstrationum; et redargutione rationis humanæ nativæ. Neque nos fugit, absque tanto motu accessiones non parvas ad scientias a nobis fieri potuisse, atque aditu fortasse ad laudem molliore. Verum nos nescii quando hæc alicui alii in mentem ventura sint, fidem nostram in integrum liberare decrevimus.

Post aream mentis æquatam, sequitur ut mens ponatur in conversione bona, et veluti in adspectu benevolo ad ea quæ proponemus. Cum enim in re nova valeat ad præjudicium, non solum præoccupatio fortis opinionis veteris, verum etiam præceptio sive præfiguratio falsa rei, quæ affertur, etiam huic malo remedium adhibendum est, atque mens non tantum vindicanda, sed et præparanda. Ea præparatio nihil aliud est quam ut veræ habeantur de eo, quod adducimus, opiniones, ad tempus tantummodo, et tanquam usurariæ, donec res ipsa pernoscatur. Atque hoc in eo fere situm est, ut pravæ et sinistræ suspiciones, quales ex prænotionibus receptis (veluti ex atra bile quadam epidemica) mentes hominum subituras facile conjicimus, arceantur atque intercipiantur, quod ait ille:

"—ne qua
Occurrat facies inimica, atque omnia turbet."

Primo igitur si quis ita cogitet, occulta naturæ veluti signo divino clausa manere, atque ab humana sapientia interdicto quodam separari, dabimus operam ut hæc opinio infirma atque invida tollatur, eoque rem perducemus, simplici veritate freti, ut non solum ne qua oblatret superstitio, verum etiam ut religio in partes nobis accedat. Rursus si cui hujusmodi quippiam in mentem veniat opinari, magnam illam et solicitam moram in experientia, et in materiæ et rerum particularium undis, quam hominibus imponemus, mentem veluti in Tartarum quendam confusionis dejicere, atque ab abstractæ sapientiæ serenitate et tranquillitate, ut a statu multo diviniore, submovere, docebimus atque in perpetuum, ut speramus, stabiliemus (non sine rubore, ut existimamus, omnis scholæ, quæ meditationibus inanibus atque ab omni essentia desertissimis apotheosin quandam attribuere non veretur) quantum inter divinæ mentis ideas et humanæ mentis idola intersit. Quin etiam illis, quibus, in contemplationis amorem effusis, frequens apud nos operum mentio asperum quiddam atque ingratum et mechanicum sonat, monstrabimus quantum illi desideriis suis propriis adversentur, cum puritas contemplationum, atque substructio et inventio operum prorsus eisdem rebus nitantur, ac simul perficiantur. Adhuc si quis hæsitet, atque istam scientiarum ab integro regenerationem, ut rem sine exitu, et vastam, et quasi infinitam aceipiat, ostendemus eam contra censeri debere potius errorum et vastitatis terminum et verum finitorem; atque planum faciemus, inquisitionem rerum particularium justam et plenam, demptis individuis, et gradibus rerum, et variationibus minutis, (id quod ad scientias satis est,) atque inde debito modo excitatas notiones sive ideas, rem esse multis modis magis finitam, et habilem, et comprehensibilem, et sui certam, et de eo, quod confectum est, atque eo, quod superest, gnaram, quam speculationes et meditationes abstractas, quarum revera nullus est finis, sed perpetua circulatio, volutatio, et trepidatio. Atque etiamsi quis sobrius (ut sibi videri possit) et civilis prudentia diffidentiam ad hæc transferens, existimet hæc, quæ dicimus, votis similia videri, quæque spei nimis indulgeant, revera autem ex philosophiæ statu mutato nil aliud secuturum, quam ut placita fortasse transferantur, res autem humanæ nihilo futuræ sint auctiores; huic fidem, ut putamus, faciemus, nil minus agi, quam placitum aut sectam, nostramque rationem ab iis, quæ hucusque in philosophia et scientiis præbita sunt, toto genere differre: operum autem certissimam messem sponderi, ni homines muscum sive segetem herbidam demetere præoccuparent, atque affectu puerili et conatu fallaci operum pignora intempestive captaverint. Atque ex his, quæ diximus, pertractatis, satis cautum de prædjudicio fore existimamus illius generis, quod ex prava et iniqua rei, quæ adducitur, perceptione conflatur, atque una secundam partem, quam præparantem appellamus, absolvi; postquam et ex parte religionis et ex parte contemplationis abstractæ, et ex parte prudentiæ naturalis, atque ejus comitatu, diffidentia, et sobrietate, et similibus, omnis adversa aura conticuerit, et reflare desierit. Attamen ut omnibus numeris completa adhibeatur præparatio, illud desse videtur, ut languor ipse mentis et torpor ex rei miraculo contractus tollatur. Hæc autem mala dispositio mentis tantum per causarum indicationem aufertur: sola enim causarum cognitio miraculum rei, et stuporem mentis solverit. Itaque omnes impedimentorum malitias et molestias, quibus intercluſa philosophia vera remorata est, signabimus, ut minime mirum sit humanum genus erroribus tam diuturnis implicatum, atque exercitum fuisse. In qua parte etiam illud opportune ad spem solido argumento fovendam patebit, nimirum licet vera illa naturæ interpretatio, quam molimur, merito maxime difficilis, tamen multo maximam difficultatis partem in iis subesse, quæ in potestate nostra sunt atque corrigi possunt, non in iis, quæ extra potestatem nostram sita existunt; in mente (inquam) non in rebus ipsis, aut in sensu. Quod si cui supervacua videatur accurata ista nostra, quam adhibemus ad mentes præparandas, diligentia,

atque cogitet hoc quiddam esse ex pompa, et in ostentationem compositum, itaque enpiat rem ipsam, missis ambagibus et præstructionibus, simpliciter exhiberi; certe optabilis nobis foret (si vera esset) hujusmodi insinuatio. Utinam enim tam proclive nobis esset difficultates et impedimenta vincere, quam fastum inanem et falsum apparatum deponere. Verum hoc velimus homines existiment, nos haud inexplorato viam in tanta solitudine inire, præsertim cum argumentum hujusmodi præ manibus habeamus, quod tractandi imperitia perdere, et veluti exponere nefas sit. Itaque ex perpenso et perspecto tam rerum quam animorum statu, duriores fere aditus ad hominum mentes, quam ad res ipsas, invenimus, ac tradendi labores inveniendi laboribus haud multo leviores experimur, atque quod in intellectualibus res nova fere est, morem gerimus, et tam nostras cogitationes quam aliorum simul bajulamus. Omne enim idolum vanum arte, atque obsequio, ac debito accessu subvertitur; vi et contentione atque incursione subita et abrupta efferatur. Neque hoc ideo tantum fit, quod homines vel admiratione auctorum captivi, vel propria fiducia tumidi, vel assuetudine quadam renitentes, se æquos præbere nolint. Si quis libentissime sibi æquitatem imperare voluerit, atque omne præjudicium veluti ejuraverit, tamen et tali mentis dispositioni neutiquam propterea fidere oporteret. Nemo enim intellectui suo ex arbitrio voluntatis suæ imperat, neque philosophorum (ut prophetarum) spiritus philosophis subjecti sunt. Itaque non aliorum æquitas, aut sinceritas, aut facilitas, sed nostra propria cura atque morigeratio et insinuatio nobis præsidio esse possit. Qua in re accedit et alia quædam difficultas ex moribus nostris haud parva, quod constantissimo decreto nobis ipsi sancivimus, ut eandorem nostrum et simplicitatem perpetuo retineamus, nec per vana ad vera aditum quæramus, sed ita obsequio nostro moderemur, ut tamen non per artificium aliquod vafrum, aut imposturam, aut aliquid simile impostura, sed tantummodo per ordinis lumen, et per novorum super saniorem partem veterum solertem insitionem, nos nostrorum votorum compotes fore speremus. Itaque eo redimus, ut hanc præmuniendi diligentiam minorem potius pro tantis difficultatibus, quam minus necessariam esse judicemus. Missa autem jam parte præparante, ad partem informantem veniemus, atque artis ipsius, quam addneimus, figuram simplicem et nudam proponemus.

Quæ ad intellectum perficiendum, ad interpretationem naturæ faciunt, dividuntur in tres ministrationes, ministrationem ad sensum, ministrationem ad memoriam, et ministrationem ad rationem. In ministratione ad sensum tria docebimus. Primo, quomodo bona notio constituatur et eliciatur, ac quomodo testatio sensus, quæ semper est ex analogia hominis, ad analogiam mundi reducatur et rectificetur; neque enim multum sensui tribuimus in perceptione immediata, sed quatenus motum sive alterationem rei manifestat. Secundo, quomodo ea, quæ sensum effugiunt aut subtilitate totius corporis, aut partium minutiis, aut loci distantia, aut tarditate, vel etiam velocitate motus, aut familiaritate objecti, aut alias, in ordinem sensus redigantur, atque ejus judicio sistantur, ac insuper in casu, quo adduci non possunt, quid faciendum, atque quomodo huic destitutioni vel per instrumenta, vel per graduum observationem peritam, vel per corporum proportionatorum ex sensibilibus ad insensibilia indicationes, vel per alias vias ac substitutiones, sit subveniendum. Postremo loco de historia naturali, et de modo experimentandi dicemus, qualis sit ea historia naturalis, quæ ad philosophiam condendam sufficere possit; et rursus qualis experimentatio, deficiente historia, necessario sit suscipienda: ubi etiam quædam de provocanda et figenda attentione admiscebimus. Multa enim in historia naturali atque experimentis, notitia ipsa adesse jampridem, usu abesse solent, propter vim animi apprehensivam minime excitatam. His tribus ministratio ad sensum absolvitur. Aut enim sensui materia præbetur, aut juvamentum; nimirum vel ubi deficit, vel ubi declinat. Materiæ, historia, et experimenta, defectui sensus substitutiones; declinationi rectificationes debentur. Ministratio ad memoriam hoc officium præstat, ut ex turba rerum particularium, et naturalis historiæ generalis acervo, particularis historia excerpatur, atque disponatur eo ordine, ut judicium in eam agere, et opus suum exercere possit. Etenim vires mentis sobrie æstimandæ, neque sperandum ut eæ in rerum infinitate discurrere possint. Manifestum autem est, memoriam tum in rerum multitudine comprehendenda incapacem et incompetentem; tum in rerum delectu, quæ ad inquisitionem aliquam definitam faciant, suggerendo imparatam atque inhabilem esse. Quod autem ad prius malum attinet, facilis est medendi ratio; unico enim remedio absolvitur; ut nulla nisi de scripto inquisitio aut inventio recipiatur. Perinde enim est ut quis interpretationem naturæ in aliquo subjecto, memoria sola nixus, compleeti velit, ac si computationes ephemeridis memoriter tenere aut perficere tentet. Quinetiam satis liquet quantum memoriæ et mentis discursui tribuamus, cum nec de scripto inventionem, nisi per tabulas ordinatas, probemus. De posteriore igitur magis laborandum. Atque certe postquam subjectum inquisitioni constitutum et terminatum sit, atque a corpore rerum abscissum et in confusum constiterit, (in quo habemus nonnulla, quæ utiliter præcipiamus,) ministratio ista ad memoriam tribus operis sive officiis constare videtur. Primo docebimus qualia sint ea, quæ circa subjectum datum sive propositum (discurrendo per historiam) inquiri debeant, quod est instar topicæ. Secundo, quo ordine illa disponi oporteat, et in tabulas digeri. Neque tamen ullo modo speramus veram rei venam, quæ ex analogia universi sit jam a principio, inveniri posse, ut eam partitio sequatur; sed tantum apparentem, ut res aliquo modo secetur in partes. Citius enim emerget veritas e falsitate, quam e confusione, et facilius ratio corriget partitionem, quam penetrabit massam. Tertio itaque ostendemus, quo modo et quo tempore inquisitio sit reintegranda, et chartæ sive tabulæ præcedentes in chartas novellas transportandæ, et quoties inquisitio sit repetenda. Etenim primas chartarum series vel sequelas super polos mobiles verti statuimus, et tantum probationes esse et tentamenta inquisitionis; siquidem mentem in naturam rerum jus suum persequi et obti-

nere posse, nisi repetita actione, plane diffidimus. Itaque ministratio ad memoriam tribus (ut diximus) doctrinis absolvitur; de locis inveniendi, de methodo contabulandi, et de modo instaurandi inquisitionem.

Superest ministratio ad rationem, cui ministrationes duæ priores subministrant. Nullum enim per eas constituitur axioma, sed tantum notio simplex cum historia ordinata; certo verificata per ministrationem primam, atque ita repræsentata per secundam, ut tanquam in potestate nostra sit. Atque ministratio ad rationem ea maxime probari meretur, quæ rationem ad opus suum exequendum, et finem obtinendum optime juvabit. Opus autem rationis natura unicum; fine et usu gemiaum est. Aut enim scire et contemplari, aut agere et effiecre, homini pro fine est. Itaque aut causæ expetitur cognitio et contemplatio; aut effecti potestas et copia. Quamobrem dati effectus vel naturæ in quovis subjecto causas nosse intentio est humanæ scientiæ. Atque rursus, super datam materiæ basin effectum quodvis sive naturam (inter terminos possibiles) imponere vel superinducere, intentio est humanæ præsentiæ. Atque hæ intentiones, acutius inspicienti et vere æstimanti, in idem coincidunt. Nam quod in contemplatione instar causæ est, in operatione est instar medii; scimus enim per causas, operamur per media. Et certe si media universa, quæ ad opera quælibet requiruntur, homini optato ad manum suppeterent, nil opus foret magnopere ista separatim tractare. Verum cum operatio humana in multo majores angustias compellatur, quam scientia, propter individui multiplices necessitates et inopias; adeo ut ad partem operativam requiratur sæpius non tam sapientia universalis et libera de eo quod fieri potest, quam prudentia sagax et solers ad deiectum eorum quæ præsto sunt; ista tractatu felicius disjungi consentaneum est. Quare et ministrationis eandem partitionem faciemus, ut aut parti contemplativæ, aut activæ ministretur. Atque quod ad partem contemplativam attinet, ut verbo dicamus, in uno plane sunt omnia. Hoc ipsum non aliud est, quam ut verum constituatur axioma, sive idem copulatum; hæc enim est veritatis portio solida, cum simplex notio instar superficiei videri possit. Hoc autem axioma non elicitur aut efformatur, nisi per inductionis formam legitimam et propriam; quæ experientiam solvat et separet, atque per exclusiones et rejectiones debitas necessario concludat. Vulgaris autem inductio (a qua tamen principiorum ipsorum probationes petuntur) puerile quiddam est, et precario concludit, periculo ab instantia contradictoria exposita; adeo ut dialectici de ea nec serio cogitasse videantur, fastidientes, et ad alia properantes. Illud interim manifestum est, quæ per inductionem cujusvis generis concluduntur, simul et inveniri et judicari, nec a principiis aut mediis pendere, sed mole stare sua, neque aliunde probari. Multo magis necesse est ea, quæ ex vera inductionis forma excitantur, axiomata esse seipsis contenta, atque ipsis principiis, quæ vocantur, certiora et firmiora. Atque hoc genus inductionis illud est, quod interpretationis formulam appellare consuevimus. Itaque præ omnibus doctrinam de constitutione axiomatis et formula interpretandi diligenter et perspicue compleetimur. Restant tamen, quæ huic rei serviunt, tria maximi omnino momenti, sine quorum explicatione inquisitionis istius præscriptum, licet potestate validum, tamen usu operosum censeri possit. Ea sunt, inquisitionis ipsius continuatio, variatio, et contractio; ut nihil in arte aut abruptum, aut incongruum, aut pro humanæ vitæ brevitate longum relinquatur. Docebimus itaque primo usum axiomatum (jam per formulam inventorum) ad alia axiomata inquirenda et excitanda, quæ superiora et magis generalia sint: ut per veros et nusquam intermissos gradus scalæ adscensoriæ ad unitatem naturæ perveniatur. In quo tamen adjiciemus modum eadem axiomata superiora per experientias primas examinandi et verificandi, ne rursus ad conjecturas, et probabilia, atque idola prolabamur. Atque hæc est ea doctrina, quam inquisitionis continuationem appellamus. Variatio autem inquisitionis sequitur naturam diversam, aut causarum, quarum gratia inquisitio instituitur; aut rerum ipsarum, sive subjectorum, in quibus inquisitio versatur. Itaque missis causis finalibus, quæ naturalem philosophiam prorsus corruperunt, initia sumemus ab inquisitione variata sive accommodata formarum; quæ res pro desperata hucusque abjecta est, idque merito. Neque enim ulli obvenire possit tanta facultas aut felicitas, ut ex anticipationibus et dialecticis argumentationibus alicujus rei formam eruat. Sequentur inquisitiones materiarum et effieientium. Cum autem efficientia et materias dicimus, non efficientia remota, et materias communes (qualia in disputationibus agitantur) sed efficientia propiora, et materias præparatas intelligimus. Id ne sæpius subtilitate inutili repetatur, inventionem latentis processus subtexemus. Latentem autem processum appellamus seriem et ordinem mutationis; rem scilicet ex efficientis motu et materiæ fluxu conflatam. Quæ autem secundum subjecta fit inquisitionis variatio, ex duabus rerum conditionibus ortum habet; aut ex natura simplicis et compositi, (alia enim accommodatur inquisitio ad res simplices, alia ad compositas et decompositas et perplexas,) aut ex historiæ copia et inopia, quæ ad inquisitionem peragendam parari possit. Ubi enim historia abundat, expedita est ratio inquisitionis; ubi tenuis est, in arcto est labor, et multifaria industria et arte opus habet. Itaque per ista, quæ jam dicta sunt tractata, variationem inquisitionis absolvi putamus. Restat inquisitionis contractio, ut non tantum in inviis via, sed et in viis compendium, et tanquam linea recta, quæ per ambages et flexus secet, ex indiciis nostris inducat. Hoc autem (veluti et omnis ratio compendiaria) maxime in rerum delectu consistit. Duas autem invenimus veluti rerum prærogativas, quæ ad inquisitionis compendia plurimum faciunt; prærogativam instantiæ, et prærogativam inquisiti. Itaque docebimus primo quales sint illæ instantiæ, sive experimenta, quæ ad illuminationem præ cæteris excellant, adeo ut paucæ idem, quod aliæ plures, præstent. Hoc enim et moli ipsius historiæ, et discurrendi laboribus parcit. Deinde etiam explicabimus, qualia sint ea inquisita, a quibus interpretationem auspicari oporteat, utpote quæ prædisposita sequentibus facem quandam præferunt aut ob exquisitam certitudinem in se, aut ob naturam univer-

salem, aut ob necessitatem ad probationes mechanicas. Atque hic ministrationi, quæ ad contemplativam partem spectat, finem imponimus. Activam autem partem ac ejus ministrationem triplici doctrina elaudemus, si prius duo monita ad aperiendas hominum mentes præmittamus. Horum primum est, in inquisitione ea, quæ fit per formulam, inter contemplativam partem activam ipsam perpetuo intercurrere. Hoc enim fert rerum natura, ut propositiones et axiomata, a magis generalibus per argumentationem dialecticam deducta et derivata ad particularia et opera, obscure admodum et incerto innuant. Quod autem ex particularibus axioma educitur, ad nova particularia, tanquam correspondentia, manifesto et constanti tramite ducat. Alterum hujusmodi est, ut meminerint homines in inquisitione activa necesse esse rem per scalam descensoriam (cujus usum in contemplativa sustulimus) confici. Omnis enim operatio in individuis versatur, quæ infimo loco sunt. Itaque a generalibus per gradus ad ea descendendum est. Neque rursus fieri potest, ut per axiomata simplicia ad ea perveniatur; omne enim opus atque ejus ratio ex coitione axiomatum diversorum instituitur et designatur. Itaque hæc præfati ad triplicem illam doctrinam activam veniemus; quarum prima proponit modum inquisitionis distinctum et proprium, ubi non jam causa, aut axioma, sed operis alicujus effectio ex intentione est, atque inquisitioni subjicitur. Secunda ostendit modum conficiendi tabulas practicas generales, per quas omnigenæ operum designationes facilius et promptius deducantur. Tertia subjungit modum quendam inquirendi sive inveniendi opera, imperfectum certe, sed tamen non inutilem, quo ab experimento ad experimentum procedatur absque constitutione axiomatis. Nam quemadmodum ab axiomate ad axioma, ita etiam ab experimento ad experimentum datur et aperitur quædam via ad inveniendum instabilis et lubrica, sed tamen non prorsus silentio prætermittenda. Jam igitur et practicam ministrationem quoque, quæ in distributione ultima posita est, absolvimus. Atque hæc est hujusce secundi libri aperta et brevis delineatio. Quibus explicatis, thalamum nos mentis humanæ et universi, pronuba divina bonitate, plane constituisse confidimus. Epithalamii autem votum sit, ut ex eo connubio auxilia humana, tanquam stirps heroum, quæ necessitates et miserias hominum aliqua ex parte debellent et doment, suscipiatur et deducatur. Sub finem tamen quædam de laborum consociatione et successione subjiciemus. Tunc enim demum homines vires suas noscent, cum non eadem infiniti, sed omissa alii præstabunt. Neque sane de futuris ætatibus spem abjecimus, quin exoriantur qui ista a tenuibus profecta initiis in majus provehant. Illud enim occurrit, hoc quod agitur, ob boni naturam eminentem, manifeste a Deo esse. In divinis autem operibus minima quæque principia eventum trahunt.

Atque in redargutione ipsa philosophiarum, quam paramus, nescimus fere, quo nos vertamus, cum via, quæ aliis in confutationibus patuit, nobis intercisa sit. Nam et tot et tanta se ostendunt errorum agmina, ut ea non strictim, sed confertim evertere et summovere necesse sit; et si propius accedere, et cum singulis manum conserere velimus, id frustra fuerit; sublata disputationis lege, cum de principiis non consentiamus; et multo magis quod ipsas probationum et demonstrationum formas et potestates rejiciamus. Quod si (id quod solum relinqui videtur) ea, quæ nos asserimus, a sensu ipso et experientia educere et excitare connitamur; rursus eodem revolvimur; et obliti eorum, quæ de animorum præparatione dicta sunt, contrariam ingressi viam inveniamur; nam in res ipsas abrupte et directo incidamus, ad quas viam quandam aperiri et substerni, propter obfirmatas animorum præoccupationes et obsessiones, necesse esse decrevimus. Sed tamen propterea ipsi nos minime deseremus; sed aliquid comminisci et tentare, quod proposito nostro consentaneum sit, conabimur; tum signa quædam adducentes, ex quibus de philosophiis judicium fieri possit; tum interim inter ipsas philosophias, portenta errorum nonnulla, et mera animorum ludibria ad earum auctoritatem labefactandam notantes. Neque tamen nos fugit, fortius hujusmodi errorum ærа figi, quam ut eis per saturam derogetur; præsertim cum viris doctis non sit nova aut incognita ea confidentiæ et jactantiæ species, quæ opiniones abjecit, non frangit. Sed nec nos aliquid levius aut inferius, quam pro rei, quæ agitur, majestate afferemus, neque ex hoc genere redargutionis prorsus fidem facere, sed tantum patientiam et æquanimitatem, idque in ingeniis tantum altioribus et firmioribus, conciliare speramus. Neque enim quispiam ex isto assiduo et perpetuo errorum contubernio ita se recipere potest, et ad nostra cum tanta benevolentia et animi magnitudine accedere, ut non cupiat habere interim quæ de veteribus et receptis cogitet et opinetur. Sane in tabellis non alia inscripseris nisi priora deleveris; in mente ægre priora deleveris, nisi alia inscripseris.

Itaque huic desiderio subvenicndum putavimus, atque hæc prorsus eo spectant (ut quod res est aperte eloquamur) ut volentes ducant, non ut nolentes trahant. Omnem violentiam (ut jam ab initio professi sumus) abesse volumus: atque quod Borgia facete de Caroli octavi expeditione in Italiam dixit, Gallos venisse in manibus cretam tenentes, qua diversoria notarent, non arma, quibus perrumperent. Similem quoque iuventorum nostrorum et rationem et successum animo præcipimus; nimirum ut potius animos hominum capaces et idoneos seponere et subire possint, quam contra sentientibus molesta sint. Verum in hac parte, de qua jam loquimur, quæ ad redargutionem philosophiarum pertinet, feliciter sane levati sumus, casu quodam opportuno et mirabili. *Nam dum hæc tractarem, intervenit amicus meus quidam ex Gallia rediens, quem cum salutassem, atque ego illum, ille me, de rebus nostris familiariter interrogassemus: Tu vero inquit, vacuis tuis ab occupationibus civilibus intervallis, aut saltem remittentibus negotiis, quid agis? Opportune, inquam, nam ne nil me agere existimes, meditor instaurationem philosophiæ, ejusmodi, quæ nihil inanis aut abstracti habeat, quæque vitæ humanæ condi-

* Quæ abhinc sequuntur, in priori editione tractatulum faciunt, cui titulus *Redargutio Philosophiarum*.

tiones in melius provehat. Honestum profecto opus, inquit: et quos socios habes? Ego certe, inquam, profecto nullos: quin nec quenquam habeo, quo cum familiariter de hujusmodi rebus colloqui possim, ut me saltem explicem et exacuam. Duræ, inquit, partes tuæ sunt: et statim addidit, atque tamen scito hæc aliis curæ esse. Tum ego lætatus: Guttula, inquam, me aspersisti, atque animam reddidisti. Ego enim anum quandam fatidicam non ita pridem conveni, quæ mihi nescio quid obmurmurans, vaticinata est, fœtum meum in solitudine periturum. Vis, inquit, ut tibi narrem quæ mihi in Gallia circa hujusmodi negotium evenerunt. Libentissime, inquam, atque insuper gratiam habebo.

Tum retulit se Parisiis vocatum a quodam amico suo, atque introductum in conecssum virorum, qualem, inquit, vel tu videre velles; nihil enim in vita mihi accidit jucundius. Erant autem circiter quinquaginta viri, neque ex iis quisquam adoleseens, sed omnes ætate provectiores, quique vultu ipso dignitatem cum probitate singuli præ se ferrent. Inter quos aiebat se cognovisse nonnullos honoribus perfunctos, atque alios ex senatu; etiam antistites sacrorum insignes, atque ex omni fere ordine eminentiore aliquos; erant etiam quidam, ut aiebat, peregrini ex diversis nationibus. Atque cum ille primo introiisset, invenit eos familiariter inter se colloquentes; sedebant tamen ordine sedilibus dispositis, ac veluti adventum alicujus expectantes.

Neque ita multo post ingressus est ad eos vir quidam, aspectus (ut ei videbatur) admodum placidi et sereni, nisi quod oris compositio erat tanquam miserantis; cui cum omnes assurrexissent, ille circumspiciens et subridens: Nunquam, inquit, existimavi potuisse fieri, ut otium omnium vestrum, cum singulos recognosco, in unum atque idem tempus coineideret; idque quomodo evenerit, satis mirari non possum. Cumque unus ex cœtu respondisset, eum ipsum hoc otium illis fecisse, cum quæ ab ipso exspectarent illi ducerent omni negotio potiora: Atque ut video, inquit, universa illa jactura ejus, quod hic consumetur, temporis, quo certe vos separati multis mortalibus profuissetis, ad meas rationes accedet. Quod si ita est, videndum profecto ne vos diutius morer: simul eonsedit, absque suggesto aut cathedra, sed ex æquo cum cæteris, atque hujusmodi quædam apud eum consessum verba fecit; nam aiebat, qui hæc narrabat, se illa tum excepisse, ut potuit, licet eum apud se una cum illo amico suo, qui eum introduxerat, ea recognosceret, fatereturr ea longe inferiora iis, quæ tum dicta essent, visa esse. Exemplum autem orationis, quam excerperat, quod circa se habebat, proferebat. Illud ita scriptum erat.

Vos certe, filii, homines estis et mortales; nec conditionis vestræ tantum pœniteat, si naturæ vestræ satis memineritis. Deus, mundi conditor et vestrum, animas vobis donavit mundi ipsius capaces, nec tamen eo ipso satiandas. Itaque fidem vestram sibi seposuit, mundum sensui attribuit: neutra autem oracula clara esse voluit, sed involuta, ut vos exerceret, quandoquidem excellentiam rerum rependeret. Atque de rebus divinis optima de vobis spero: circa humana autem, metuo vobis, ne diuturnus error vos usu ceperit. Existimo enim hoc apud vos penitus credi, vos statu uti scientiarum florente et bono. Ego rursus moneo vos, ne eorum quæ habetis aut copiam, aut utilitatem, quasi ad magnum aliquod fastigium evecti, et votorum compotes, aut laboribus perfuncti, accipiatis. Idque sic considerate.

Si in omnem illam scriptorum varietatem, qua scientiæ tument et luxuriantur, de eo quod afferunt interpelletis, et stricte, et presse examinetis, ubique reperietis ejusdem rei repetitiones infinitas: verbis, ordine, exemplis, atque illustratione, diversas; rerum summa et pondere ac vera potestate prælibatas ac plane iteratas; ut in pompa paupertas sit, et in rebus jejunis fastidium. Atque si vobiscum familiariter loqui et jocari hac de re liceat, videtur doctrina vestra cœnæ illi hospitis Chaleidensis simillima, qui cum interrogaretur unde tam varia venatio? respondit, illa omnia ex mansueto sue esse facta. Neque enim negabitis universum istam copiam nil aliud esse, quam portionem quandam philosophiæ Græcorum, eamque certe minime in saltu aut silvis naturæ nutritam, sed in scholis et ecllis, tanquam animal domesticum saginatum. Quod si a Græcis iisque paucis abscedatis, quid tandem habent vel Romani, vel Arabes, vel nostri, quod non ab Aristotelis, Platonis, Hippocratis, Galeni, Euclidis, Ptolemæi inventis derivetur, aut in eadem reeidat? Itaque videtis in sex fortasse hominum cerebellis et animulis spes et fortunas vestras sitas esse. Neque vero idcireo Deus vobis animas rationales indidit, ut suas partes (fidem scilicet vestram quæ divinis debetur) hominibus deferretis: neque sensus informationem firmam et validam attribuit, ut paucorum hominum opera, sed ut sua demum opera, cœlum et terram, contemplaremini; laudes suas celebrantes, et hymnum auctori vestro canentes, iis etiam viris, si placet (nihil enim obstat) in chorum acceptis.

Quinetiam ista ipsa doctrina, usu vestra, origine Græca, quæ tanta pompa incedit, quota pars fuit illa sapientiæ Græcorum? Ea enim varia fuit; varietas autem ut veritati non aequiescit, ita nec errorem figit, sed ad veritatem est instar iridis ad solem, quæ omnium imaginum est maxime infirma, et quasi deperdita, sed tamen imago. Verum et hanc quoque varietatem nobis extinxit (Græcus et ipse) Aristoteles: eredo, ut discipuli res gestas æquaret. Atque discipuli præconium (si recte memini) tale celebratur:

> "Felix terrarum prædo, non utile mundo
> Editus exemplum, terras tot posse sub uno
> Esse viro."—

An et magister, felix doctrinæ prædo? Acerbe illud, sed quæ sequuntur optime. Nullo enim modo ille utilis rebus humanis, qui tot egregia ingenia, tot, inquam, libera capita in servitutem redegerit. Itaque, filii, de copia vestra audistis quam arcta, quam ad paucos redacta. Divitiæ enim vestræ sunt paucorum census. De utilitate jam attendite.

Atque tandem aditum ad mentes et sensus vestros, non dicam impetrabimus (vos enim benevoli) sed struemus aut machinabimur, res siquidem difficilis? Quo fomite, qua accensione lumen nobis innatum excitabimus, idque a præstigiis luminis adventitii et infusi liberabimus? Quo modo, inquam, nos vobis dabimus, ut vos vobis reddamus? Infi-

nita præjudicia facta sunt, opiniones haustæ, receptæ, sparsæ. Theologi multa e philosophia ista sua fecerunt, et speculativam quandam ab utraque doctrina coagmentatam condiderunt. Viri civiles, qui ad existimationis suæ fructum pertinere putant, ut docti habeantur, multa ubique ex eadem scriptis suis et orationibus insperguut. Etiam voces, filii, et verba ex dictamine ejusdem philosophiæ, et secundum ejus præscripta et placita, apposite conficta sunt, adeo ut simul ac loqui didiceritis, (felicem dicam an infelicem,) hanc errorum cabalam haurire et imbibere necesse fuerit. Neque hæc tantum consensu singulorum firmata, sed et institutis academiarum, collegiorum, ordinum, fere rerumpublicarum veluti sancita est.

Huic itaque jam subito renunciabitis? Idne sumus vobis auctores? Atqui ego, filii, hoc non postulo, neque hujusmodi philosophiæ vestræ fructus moror, aut eos vobis interdico, neque in solitudinem aliquam vos abripiam. Utimini philosophia, quam habetis, disputationes vestras ex ejus uberibus alite, sermones ornate, graviores apud vulgus hominum hoc ipso nomine estote. Neque enim philosophia vera ad hæc multum utilis vobis erit: non præsto est, nec in transitu capitur, nec ex prænotionibus intellectui blanditur, non ad vulgi captum (nisi per utilitatem et opera) descendit. Servate itaque et illam alteram, et, prout commodum vobis erit, adhibete: atque aliter cum natura, aliter cum populo negotiamini. Nemo enim est, qui plus multo, quam alius quis, intelligit, quin ad minus intelligentem tanquam personatus sit, ut se exuat, alteri det. Verum illud vos familiariter pro more nostro moneo, "Habete Laidem, dummodo a Laide non habeamini." Judicium sustinete, aliis vos date, non dedite; et vos melioribus servate. Atque videmur minus quiddam vobis imponere, quod hæc, quæ in manibus habetis, usu vobis et honore manebunt: ideoque æquiore animo passuri estis, eadem de veritate et utilitate in dubium vocari.

Verum etiamsi vos optime animati essetis, ut quæcunque hactenus didicistis aut credidistis, spretis opinionibus, ac etiam rationibus vestris privatis, vel hoc ipso loco deposituri sitis, modo de veritate vobis constaret; attamen hac quoque ex parte hæremus: neque habemus fere quo nos vertamus; ut fidem vobis rei tam inopinatæ et novæ faciamus. Certe disputationis lex penitus sublata est, cum de principiis nobis vobiscum non conveniat. Etiam spes ejusdem præcisa est, quia de demonstrationibus, quæ nunc in usu sunt, dubitatio injecta est, atque accusatio suscepta. Atque hoc animorum statu veritas ipsa vobis non tuto committitur. Itaque intellectus vester præparandus antequam docendus, animi sanandi antequam exercendi sunt, area denique purganda antequam inædificanda: atque ad hunc finem hoc tempore convenistis. Qua igitur industria aut commoditate hoc negotium discutiemus aut agemus? Non desperandum.

Inest profecto, filii, animæ humanæ, utcunque occupatæ et obsessæ, aliqua pars intellectus pura et veritatis hospitâ; estque ad eam aliqua molli clivo orbita deducens. Agite, filii, vos et ego viros doctos, si quid in hoc genere sumus, exuamus; et faciamus nos tanquam aliquos e plebe; et omissis rebus ipsis, ex signis quibusdam externis conjecturas capiamus. Hæc enim saltem nobis cum hominibus communia sunt.

Doctrina vestra, ut dictum est, fluxit a Græcis. Qualis natio? Nil mihi rei cum convitio est, filii; itaque quæ de ea dicta sunt ab aliis, nec repetam, nec imitabor. Tantum dico eam nationem fuisse semper ingenio præproperam, more professoriam, quæ duo sapientiæ et veritati sunt inimicissima. Nec præterire fas est verba sacerdotis Ægyptii, præsertim ad virum e Græcia excellentem prolata, ab auctore etiam nobili e Græcia relata. Is sacerdos certe verus vates fuit, cum diceret, "Vos Græci semper pueri." Annon bene divinatum est? Verissime certe, Græcos pueros æternos esse: idque non tantum in historia, et rerum memoria, sed multo magis in rerum contemplatione. Quidni enim sit instar pueritiæ ea philosophia, quæ garrire et causari noverit, generare et procreare non possit: disputationibus inepta, operibus inanis? Mementote ergo (ut ait propheta) rupis ex qua excisi estis, et de natione, cujus auctoritatem sequimini, quod Græca sit, interdum cogitate.

Sequitur temporis nota, qua philosophia ista vestra nata est et prodiit. Ætas erat, filii, cum illa condita fuit, fabulis vicina, historiæ egena, peregrinationibus et notitia orbis parum informata aut illustrata, quæque nec antiquitatis venerationem, nec temporum recentium copiam habebat, sed utraque dignitate et prærogativa carebat. Etenim antiquis temporibus credere licet fuisse divinos viros, qui altiora, quam pro hominum communi conditione, saperent. Nostram autem ætatem, fateri necesse est, præ illa de qua loquimur (ut taceam ingeniorum et meditationum fructus et labores) etiam duorum fere mille annorum eventis et experientia, et duarum tertiarum orbis notitia auctam esse. Itaque videte quam anguste habitaverint, vel potius conclusa fuerint illius ætatis ingenia, si rem vel per tempora, vel per regiones computetis. Neque enim mille annorum historiam, quæ digna historiæ nomine sit, habebant; sed fabulas et somnia. Regionum vero tractuumque mundi quotam partem noverant, cum omnes hyperboreos, Scythas; omnes occidentales, Celtas, indistincte appellarent; nil in Africa ultra citimam Æthiopiæ partem, nil in Asia ultra Gangem, multo minus novi orbis provincias, ne per auditum sane aut fama nossent: imo et plurima climata et zonas, quibus populi infiniti spirant et degunt, tanquam inhabitabiles ab illis pronuntiatæ sint? Quinetiam peregrinationes Democriti, Platonis, Pythagoræ, non longinquæ profecto, sed potius suburbanæ, ut magnum aliquid celebrantur.

Atque experientia, filii, ut aqua, quo largior est, eo minus corrumpitur. Nostris autem temporibus (ut scitis) oceanus sinus laxavit, et novi orbes patuere, et veteris orbis extrema undique innotescunt, idque distincte ac proprie. Itaque ex ætatis et temporis natura, veluti ex nativitate et genitura philosophiæ vestræ, nil magni de ea Chaldæi prædixerint?

De hominibus videamus. Qua in re optimo fato hoc fit (neque id artificio aliquo nostro cautum est, sed

ipsa res hoc non solum patitur, verum etiam postulat) ut et illis honor servetur, et nos modestiam nostram tueri et retinere possimus, et tamen fidem liberare. Nos enim, filii, nec invidiæ nec jactantiæ nobis conscii sumus, nec de ingenii palma, nec de placitorum regno contendimus: longe alia nostra ratio est, et finis, hoeque mox aperietur. Itaque antiquorum ingeniis, excellentiæ, facultati, nihil detrahimus, sed generi ipsi, viæ, instituto, auctoritati, placitis, necessario derogamus. Immensum enim est, quantum scientiarum progressum deprimant, atque opinio eopiæ inter maximas causas inopiæ reperitur.

Atque duo sunt, viri, filii, quorum placita ex libris eorum propriis haurire licet. Plato et Aristoteles: utinam illud et reliquorum nonnullis contigisset. Sed Aristoteles, Othomannorum more, regnare se non potuisse existimavit, nisi fratres trueidasset. Idque ei non statim sane, sed postea ex voto nimis feliciter succcssit. De his itaque duobus panca dicere instituimus. Xenophontem autem tertium non adjungimus, suavem scriptorem et virum excellentem. Verum eum illis, qui philosophiam tanquam ingenii peregrinationem amœnam et jucundam, non tanquam provineiam laboriosam et solicitam susceperunt, nobis non multum rei est.

Itaque hos duos viros, Platonem et Aristotelem, si quis inter maxima mortalium ingenia non numeret, aut minus perspicit, aut minus æquus est. Ingenia certe illorum eapacia, acuta, sublimia. Sed tamen videndum primo, cujus generis philosophantium censeri possint. Invenio enim tria genera apud Græeos eorum, qui philosophiæ cultores habiti sint. Primum erat Sophistarum, qui per plurimas civitates instituta profectione, et per singulas mansitantes, adolescentes, recepta mereede, sapientia imbuere professi sunt, quales fuere Gorgias, Protagoras, Hippias; quos Plato ubique exagitat, et fere in comœdiæ morem deridendos propinat. Neque enim hi rhetores tantum erant, aut orationum conscriptores, sed universalem rerum notitiam sibi arrogabant. Secundum erat eorum, qui majore fastu et opinione, locis certis et sedibus fixis, scholas aperiebant, atque placita et sectam condentes aut excipientes, auditores, sectatores, successores insuper habebant. Ex quo genere erant Plato, Aristoteles, Zeno, Epicurus. Nam Pythagoras etiam auditores traxit, et sectam constituit, sed traditionum potius quam disputationum plenam, et superstitioni quam philosophiæ propiorem. Tertium antem genus erant eorum, qui, remoto strepitu et pompa professoria, serio veritatis inquisitioni, et rerum contemplationi dediti (et tanquam Endymion) solitarii, et quasi sopiti, sibi philosophabantur; aut adhibitis paucis (quibus idem amor erat) in colloquiorum suavitatem destinata perficiebant: neque Galateæ more, cujus lusus in undis, disputationum procellis se oblectabant. Atque tales fuere Empedoeles, Heraclitus, Demoeritus, Anaxagoras, Parmenides. Neque enim reperietis hos scholas aperuisse, sed tandem speculationes et inventa sua in scripta redegisse, et posteris transmisisse.

Nunc autem videtis certe, filii, quæ res agatur. Ego enim duo prima genera (utennque se invicem obnegent et proscindant) tamen natura rei ipsius connexa esse statuo. Itaque non hæsitabo apud vos dicere, me loeum Platoni et Aristoteli tribuere inter Sophistas; sed tanquam ordinis emendati et reformati. Eandem enim rem prorsus video. Aberat fortasse loci mutatio et eircumeursatio, et mercedis indignitas, et inepta ostentatio: atque lucet in illis certe quiddam solennius et nobilius; sed aderant schola, auditor, secta. Itaque genus ipsum profecto cernitis. Jam vero de viris ipsis aliquid separatim dicamus, institutum servantes, ut, missis rebus, ex signis conjeiamus.

Itaque ab Aristotele exorsi, memoriam vestram, filii, testamur, si in physieis ejus et metaphysicis non sæpius dialecticæ quam naturæ voces audiatis. Quid enim solidi ab eo sperari possit, qui mundum tanquam e eategoriis effeeerit? Qui negotium materiæ et vacui, et raritatis et densitatis, per distinetionem actus et potentiæ transegerit? Qui animæ genus non multo melius, quam ex voeibus secundæ intentionis, tribuerit? Verum hæc ad res ipsas penetrant. Itaque ab hujusmodi sermone absistendum. Nam eum confutationem justam instituere immemoris plane sit: ita et opiniones tanti hominis per satiram perstringere superbum foret. Signa autem in illo non bona, quod ingenium ineitatum et se proripiens, nec alienæ cogitationis nec propriæ fere patiens, quod quæstionum artifex, quod contradictionibus continuus, quod antiquitati infestus et insultans, quod quæsita obscuritas est; alia plurima, quæ omnia magisterium sapiunt, non inquisitionem veritatis.

Quod si quis ad hæc, censuram rem proclivem fortasse esse; illud interim constare, post Aristotelis opera edita, pleraque antiqnorum velnti deserta exolevisse: apud tempora autem, quæ sequuta sunt, nil melius inventum esse: magnum itaque virum Aristotelem, qui utrumque tempus ad se traxerit: atque verisimile esse philosophiam in eo ipso tanquam sedes fixas posuisse, ut nihil restet nisi ut conservetur et ornetur. Ego, filii, cogitationem hane esse existimo hominis vel imperiti, vel partibus infeeti, vel desidis. Est enim (ut dieit Scriptura) desidia quædam, quæ sibi prudens videtur et septemplici rationum pondere gravior. Atque proculdubio (si verum omnino dieendum est) ista desidia hujus opinionis invenietur pars vel maxima; dum humanæ naturæ ingenita superbia, vitiis propriis non solum ignoseens, verum etiam cultum quendam prophanum attribuens; laborum et inquirendi et experiendi fugam pro ea, quæ prudentiæ comes sit, diffidentia veneretur: neque ita multo post socordia singulorum judiciuin et auctoritatem universorum repræsentet et effingat.

Nos vero primo illud interrogamus. An ob illud vir magnus Aristoteles, quod utrumque tempus traxerit? Certe magnus. Itane? At non major quam impostorum maximus. Impostura enim, atque adeo principis impostura, Antichristi, hæe prærogativa singularis est. "Veni," inquit Veritas ipsa, "in nomine Patris mei, nec recipitis me: si quis venerit nomine suo, eum recipietis." Audistisne, filii? Sensu non proprio certe, sed pio et vero, qui in nomine paternitatis aut antiquitatis venerit, non receptum iri; qui autem priora prosternendo, destruendo, auctoritatem sibi usurpaverit, et in nomine

proprio venerit, eum homines sequi. Atque si quis unquam in philosophia in nomine proprio venit, is est Aristoteles, per omnia sibi auctor, quique antiquitatem ita despexit, ut nemincm ex antiquis vel nominare fere dignetur, nisi ad confutationem et opprobrium. Quin et disertis verbis dicere non erubescit (bene ominatus certe etiam in maledicto) verisimile esse majores nostros ex terra aliqua aut limo procreatos fuisse, ut ex opinionibus et institutis eorum stupidis, et vere terreis conjicere licet.

Neque tamen illud verum est, antiquorum philosophorum opera, postquam Aristoteles de iis ex auctoritate propria triumphasset, statim extincta fuisse. Videmus enim qualis fuerit opinio de prudentia Democriti post Cæsarum tempora,

> " — Cujus prudentia monstrat,
> Magnos posse viros, et magna exempla daturos,
> Vervecum in patria, crassoque sub aëre nasci."

Atque satis constat sub tempora excultiora imperii Romani, plurimos antiquorum Græcorum libros incolumes mansisse. Neque enim tantum potuisset Aristoteles (licet voluntas ei non defuerit) ut ea deleret, nisi Attila, et Gensericus, et Gothi ei in hac re adjutores fuissent. Tum enim postquam doctrina humana naufragium perpessa esset, tabula ista Aristoteliceæ philosophiæ, tanquam materiæ alicujus levioris et minus solidæ, servata est, et extinctis æmulis recepta.

At quod de consensu homines sibi fingunt, id et infidum et infirmum est. An vos, filii, temporis partus habetis numeratos et descriptos in fastis, eos, inquam, qui perierunt, latuerunt, aut aliis orbis partibus innotuerunt? An et abortus qui nunquam in lucem editi sunt? Itaque desinant homines angustias suas mundo et seculis attribuere et imponere. Quid si de suffragiis ipsis litem moveamus, et negemus verum et legitimum consensum esse, cum homines addicti credunt, non persuasi judicant? Transierunt, filii, ab ignorantia in præjudicium: hæc demum est illa coitio potius quam consensus. Postremo, si de isto consensu non diffiteamur, sed eum ipsum ut suspectum rejiciamus, an nos inter morbum istum animorum grassantem et epidemicum sanitatis pœnitebit? Pessimum certe, filii, omnium augurium est de consensu in rebus intellectualibus, exceptis divinis, cum veritas descendit cœlitus. Nihil enim multis placet, nisi aut imaginationem feriat, ut superstitio; aut notiones vulgares, ut doctrina sophistarum: tantumque consensus iste a vera et solida auctoritate abest, ut etiam violentam præsumptionem inducat in contrarium. Optime enim Græcus ille, *Quid peccavi?* cum complauderent.

Quod si is esset vir, qui putatur esse, Aristoteles, tamen nullo modo vobis auctor sim, ut unius hominis cogitata et placita instar oraculi recipiatis. Quæ enim, filii, est ista voluntaria servitus? tantone auditoribus monachi illius ethnici deteriores estis, ut illi suum *ipse dixit* post septennium deponerent, vos illud post annos bis mille retineatis? Atque nec istum ipsum præclarum auctorem habuissetis, si antiquitatis studium valuisset; et tamen eadem in illum lege et conditione uti veremini. Quin si me audietis, dictaturam istam non modo huic homini, sed et cuivis mortalium, qui sunt, qui erunt, in perpetuum negabitis; atque homines in recte inventis sequemini; ut videntes lucem, non in omnibus promiscue, ut cæci ducem. Neque certe vos virium pœniteat, si experiamini: neque enim Aristotele in singulis, licet forte in omnibus, inferiores estis. Atque quod caput rei est, una certe re illum longe superatis, exemplis videlicet, et experimentis et monitis temporis. Nam ut ille (quod narrant) librum confecerit, in quo ducentarum quinquaginta quinque civitatum leges et instituta collegerit; tamen non dubito quin unius reipublicæ Romanæ mores et exempla plus ad prudentiam et militarem et civilem contulerint, quam omnia illa. Similia etiam et in naturali philosophia evenerunt. Itane vero animati estis, ut non tantum dotes vestras proprias, sed etiam temporis dona projiciatis? Itaque vindicate vos tandem, et vos rebus addite, neque accessio unius hominis estote.

De Platone vero ea nostra sententia est; illum, licet ad rempublicam non accessisset, sed a rebus civilibus administrandis quodammodo refugisset propter temporum perturbationes, tamen natura et inclinatione omnino ad res civiles propensum, vires eo præcipue intendisse; neque de philosophia naturali admodum solicitum fuisse; nisi quatenus ad philosophi nomen et celebritatem tuendam, et ad majestatem quandam moralibus et civilibus doctrinis addendam et aspergendam sufficeret. Ex quo fit, ut quæ de natura scripsit, nil firmitudinis habeant. Quinetiam naturam theologia non minus, quam Aristoteles dialectica, infecit et corrupit. Optima autem in eo signa (si cætera consensissent) quod et formarum cognitionem ambiret, et inductione per omnia, non tantum ad principia, sed etiam ad medias propositiones uteretur: licet et hæc ipsa duo vere divina, et ob quæ nomen divini non dico tulit sed meruit, corruperit et inutilia reddiderit, dum et formas abstractas prensaret, et inductionis materiam tantum ex rebus obviis et vulgaribus desumeret: quod hujusmodi scilicet exempla (quia notiora) disputationibus potius conveniret. Itaque cum ei diligens naturalium rerum contemplatio et observatio deesset, quæ unica philosophiæ materia est, nil mirum si nec ingenium altum, nec modus inquisitionis felix magnopere profecerint. Verum nos ex signorum consideratione, nescio quomodo, in res ipsas prolabimur: non enim facile separari possunt, neque ea ingrata vobis auditu fuisse arbitramur.

Quin etiam fortasse et illud insuper scire vultis quid de reliquis illis scntiamus, qui alienis, non propriis scriptis nobis noti sunt, Pythagora, Empedocle, Heraclito, Anaxagora, Democrito, Parmenide, aliis. Atque hac de re, filii, nil reticebimus, sed animi nostri sensum integrum et sincerum vobis aperiemus. Scitote itaque, nos summa cum diligentia et cura omnes vel tenuissimas auras circa horum virorum opiniones et placita captasse: ut quicquid de illis vel dum ab Aristotele confutantur, vel dum a Platone et Ciccrone citantur, vel in Plutarchi fasciculo, vel in Laërtii vitis, vel in Lucretii poëmate, vel in aliquibus fragmentis, vel in quavis alia sparsa memoria et mentione, inveniri possit, evolverimus, neque cursim aut contemptim, sed cum fide et deli-

beratione, examinaverimus. Atque dubium profecto non est, quin si opiniones eorum, quas nunc per internuncios quosdam minime fidos solummodo habemus, in propriis exstarent operibus, ut eas ex ipsis fontibus haurire liceret, majorem firmitudinem habituræ fuissent; cum theoriarum vires in apta et se mutuo sustinente partium harmonia et quadam in orbem demonstratione consistant, ideoque per partes traditæ infirmæ sint.

Neque negamus nos reperire, inter placita tam varia, haud pauca in contemplatione naturæ et causarum assignatione non indiligenter notata. Alios autem in aliis (ut fere fieri solet) constat feliciores fuisse. Quod si cum Aristotele conferantur, plane censemus fuisse ex iis nonnullos, qui in multis Aristotele longe et acutius et altius in naturam penetraverint; quod fieri necesse fuit, cum experientiæ cultores magis religiosi fuerint, præsertim Democritus, qui ob naturæ peritiam etiam magus habitus est. Veruntamen nobis necesse est, si simpliciter et absque persona vobiscum agere stat decretum, nomina ista magna brevi admodum sententia transmittere: esse nimirum hujusmodi philosophorum placita ac theorias, veluti diversarum fabularum in theatro argumenta, in quandam veri similitudinem, alia elegantius, alia negligentius aut crassius conficta: atque habere quod fabularum proprium est, ut veris interdum narrationibus concinniora et commodiora videantur, et qualia quis libentius crederet. Sane cum isti famæ et opinioni tanquam scenæ minus servirent quam Aristoteles et Plato et reliqui e scholis, puriores fuere ab ostentatione et impostura, atque eo nomine saniores; cætera similes erant. Una enim quasi navis philosophiæ Græcorum videtur, atque errores diversi, causa errandi communes.

Quinetiam nobis minime dubium est, si penes populum et civitates liberas res mansissent, fieri non potuisse ut humani ingenii peregrinationes popularibus auris velificantes, utcunque inter tam numerosa et varia theoriarum commenta se sistere aut continere potuissent. Quemadmodum enim in astronomicis, et iis quibus terram rotari placet, et eis qui per veterem constructionem tenuerint, phænomenorum in cœlis patrocinia æqua sunt, quin et tabularum calculi utrisque respondent: eodem modo, ac multo etiam facilius est in naturali philosophia complures theorias excogitare inter se multum differentes, sed tamen singulas sibi constantes, et experientiam et præsertim instantias vulgares, quæ in quæstionibus philosophicis (ut nunc fit) judicia exercere solent, in diversum trahentes et pro testibus citantes.

Neque enim defuerunt etiam nostra ætate, in nostris, inquam, frigidis præcordiis atque tempore, quo res religionis ingenia consumserint, qui novas philosophiæ naturalis fabricas meditati sunt. Nam Telesius ex Consentia scenam conscendit, et novam fabulam egit, argumento profecto magis probabilem, quam plausu celebrem. Et Gilbertus ex Anglia, cum naturam magnetis laboriosissime et magna inquisitionis firmitudine et constantia, necnon experimentorum magno comitatu et fere agmine perscrutatus esset, statim imminebat et ipse novæ philosophiæ condendæ, nec Xenophanis nomen in Xenomanem per ludibrium versum expavit, in cujus sententiam inclinabat. Quin et Fracastorius, licet sectam non condiderit, tamen libertate judicii honeste usus est; eadem ausus est Cardanus, sed levior.

Atque existimo, filii, vos ad istam, quam ex nobis anditis, tam latam et generalem opinionum et auctorum rejectionem obstupescere. Licet enim de nobis bene existimetis, tamen vereri videmini, ut invidiam hujusce rei nobiscum una sustinere possitis. Quin et ipsi (credo) miremini et animi pendetis, quorsum res hæc evasura sit, et quam tandem conditionem vobis afferamus. Itaque diutius suspensos vos non tenebimus: atque simul et vos admiratione, et nos invidia, ut speramus, nisi admodum iniqua fuerit, exsolvemus. Atque meministis profecto etiam ab initio nos tale quiddam significasse. Antiquis non certe auctoritatem et fidem (id enim perniciosum) sed honorem ac reverentiam intacta et imminuta fore; tametsi possemus pro jure nostro, neque eo ipso alio quam omnium, si quid apud eos non recte inventum aut positum sit, id reprehendere aut notare. Sed res ipsa hoc non postulat, fato quodam, ut arbitramur, ad invidiam et contradictionem exstinguendam et depellendam meliore.

Audite itaque, filii, quæ jam dicemus. Nos si profiteamur nos meliora afferre quam antiqui, eandem quam antiqui viam ingressos, nulla verborum arte efficere possimus, quin inducatur quædam ingenii, vel excellentiæ vel facultatis comparatio sive contentio: non ea quidem illicita aut nova; sed impar ob virium nostrarum modum; quem eum esse satis sentimus, ut non solum antiquis, sed et vivis cedat. Cum autem (ut simpliciter apud vos loquamur) claudus in via (quod dici solet) cursorem extra viam antevertat, commutata ratio est. Atque de via (mementote) non de viribus quæstio oritur, nosque indicis non judicis partes sustinemus. Itaque aperte vale jusso omni fuco et artificio, fatemur nos in hac opinione esse, omnia omnium ætatum ingenia, si in unum coierint, eo quo nunc res geritur modo, hoc est (ut clare loquamur) ex meditatione et argumentatione, in scientiis magnos processus facere non posse. Quin neque hic finis, sed addimus insuper, quanto quis ingenio plus valet, eundem, si naturæ lucem, id est, historiam et rerum particularium evidentiam intempestive deserat, tanto in obscuriores et magis perplexos phantasiarum recessus, et quasi specus se detrudere et involvere.

Annon forte animadvertistis, filii, quanta ingeniorum et acumina et robora apud philosophos scholasticos, otio et meditationibus luxuriantes, et ob tenebras ipsas in quibus enutriti erant feroces, quales nobis telas aranearum pepererint, textura et subtilitate fili mirabiles, usus et commodi expertes. Etiam illud simul affirmamus; nostram quam ad artes adducimus rationem, et inquisitionis formam talem esse, quæ hominum ingenia et facultates, ut hæreditates Spartanas fere æquet. Nam quemadmodum ad hoc, ut linea recta aut circulus perfectus describatur, plurimum est in manus ac visus facultate, si per constantiam manus et oculorum judicium tantum res tentetur; sin per regulam admotam, aut circinum circumductum, non item; eadem ratione, et in contemplatione rerum, quæ mentis viribus solum incumbit, homo homini præstat vel maxime.

In ea autem, quam nos adhibemus, non multo major in hominum intellectu eminet inæqualitas, quam in sensu inesse solet. Quin et ab ingeniorum acumine et agilitate (ut dictum est) dum suo motu feruntur, periculum metoimus, atque in eo toti sumus, ut hominum ingeniis non plumas aut alas, sed plumbum et pondera addamus. Nullo enim modo videntur homines adhuc nosse, quam severa sit res veritatis et naturæ inquisitio; quamque parum hominum arbitrio relinquat. Neque tamen nos peregrinum quiddam, aut mysticum, aut Deum tragicum ad vos adducimus. Nil enim aliud est nostra via, nisi literata experientia, atque ars sive ratio naturam sincere interpretandi, et via vera a sensu ad intellectum.

Verum annon videtis, filii, quid per hæc, quæ diximus, effectum sit? Primum, antiquis suus honos manet. Nam in iis, quæ in ingenio et meditatione posita sunt, illi mirabiles viros se præstitere; neque nobis sane eam viam ingressis longo intervallo eorum progressus æquare, ut arbitramur, vires sufficiisseat. Deinde, intelligitis profecto, minus quiddam esse hanc rejectionem auctorum generalem; quam si alios rejecissemus, alios probassemus. Tum enim judicium quoddam exercuissemus; cum nunc tantummodo (ut dictum est) indicium faciamus. Postremo etiam perspicitis quid nobis prorsus relinquatur; sive nos aliquid sumere, sive aliis aliquid nobis tribuere libeat.

Non ingenii, non excellentiæ, non facultatis laus, sed fortuna quædam, ea magis vestra quam nostra, cum res sit potius usu fructuosa, quam inventione admirabilis. Nam uti vos fortasse miramini, quando hoc nobis in mentem venire potuerit; ita et nos vicissim miramur, quomodo idem aliis in mentem jam pridem non venerit; non ulli mortalium cordi aut curæ fuisse, ut intellectui humano auxilia et præsidia ad naturam contemplandam et experientiam digerendam compararet; sed omnia vel traditionum caligini, vel argumentorum vertigini et turbini, vel casus et experimentorum undis et ambagibus permissa esse, nec mediam quandam viam inter experientiam et dogmata aperiri potuisse? Sed tamen mirari desinimus, cum in multis rebus videre licent, mentem humanam tam lævam et male compositam esse, ut primo diffidat, et paulo post se contemnat: atque primo incredibile videatur, aliquid tale inveniri posse; postquam autem inventum sit, rursus incredibile videatur id homines tam diu fugere potuisse: sed ut quod res est proferamus; huic rei de qua nunc agimus impedimento fuit non tam rei obscuritas aut difficultas, quam superbia humana, cui natura ipsa magna ex parte eaque potiore sordescit: quæque homines eo dementiæ provehit, ut spiritus proprios, non spiritum naturæ consulant; ac si artes facerent, non invenirent.

Atque, filii, inter istam vestram tanquam per statuas antiquorum deambulationem, fieri potest ut aliquam partem porticus notaveritis velo esse discretam. Ea sunt penetralia antiquitatis ante doctrinam Græcorum. Sed quid me vocatis ad ea tempora, quorum et res et rerum vestigia aufugerunt? Annon antiquitas illa instar famæ est, quæ caput inter nubila condit et fabulas narrat, facta et infecta simul canens? Atque satis scio, si minus sincera fide agere vellem, non difficile foret hominibus persuadere, apud antiquos sapientes, diu ante Græcorum tempora, scientias et philosophiam majore virtute, licet majore etiam fortasse silentio, floruisse, idque solennius mihi foret ea quæ jam afferuntur ad illa referre, ut novi homines solent, qui nobilitatem alicujus veteris prosapiæ per genealogiarum rumores et conjecturas sibi affingunt.

Verum nobis stat sententia, rerum evidentia fretis, omnem imposturæ conditionem, quantumvis sit licet bella et commoda, recusare. Itaque judicium nostrum de illis seculis non interponimus; illud obiter dicimus, licet poëtarum fabulæ versatilis materiæ sint, tamen nos non multum arcani aut mysterii hujusmodi narrationibus subesse haud cunctanter pronuntiaasemus; si ab iis inventæ a quibus traditæ sunt; quod nos secus esse existimamus: pleræque enim traduntur tanquam prius creditæ et cognitæ, non tanquam novæ ac tunc primo oblatæ: quæ res earum existimationem apud nos auxit, ac si essent reliquiæ quædam sacræ temporum meliorum. Verum utcunque ea res se habet, non plus interesse putamus, (ad id quod agitur,) utrum quæ jam proponuntur, aut illis fortasse majora, antiquis etiam innotuerint; quam hominibus curæ esse debeat, utrum novus orbis fuerit insula illa Atlantis, et veteri mundo cognita, an nunc primum reperta, rerum enim inventio a naturæ luce petenda, non e vetustatis tenebris repetenda est.

Jam vero, filii, etiam sponte, non fortasse interpellati, ab expectatione vestra de philosophia chemistarum opinionem subjungemus. Etenim illa vestra philosophia, disputationibus potens, operibus invalida, artis chemicæ nonnullam existimationem apud quosdam peperit. Atque sane quod ad practicam chemistarum attinet, fabulam illam in eam competere existimamus, de sene, qui filiis suis aurum in vinea defossum (nec se satis scire quo loco) legaverit: unde illos protinus ad vineam fodiendam incubuisse; atque auri quidem nihil repertum, sed vindemiam ea cultura factam fuisse uberiorem: simili modo et chemiæ filii, dum aurum (sive vere, sive secus) in naturæ arvo abditum et quasi defossum, laboriose, eruere conantur: multa moliendo et tentando, magno proventui hominibus et utilitati fuere, et compluribus inventis non contemnendis vitam et res humanas donavere.

Verumtamen speculativam eorum rem levem et minus sanam esse judicamus. Nam ut ille adolescentulus delicatus cum scalmum in littore reperisset, navem ædificare coepit: ita et hi, arti suæ indulgentes, ex paucis fornacis experimentis philosophiam condere aggressi sunt. Atque hoc genus theoriarum et sæpius et manifestius vanitatis coarguitur quam illud alterum: quod certe magis sobrium et magis tectum est; nam philosophia vulgaris omnia pereurrens, et nonnihil fere de singulis degustans, se apud maximam hominum partem optime tuetur. Qui autem ex paucis, quibus ipse maxime insuevit, reliqua commiscitur, is et re ipsa errat magis, et apud alios levior est; atque ex hoc genere philosophiam chemicam esse censemus.

Certe illa opinionis fabrica, quæ eorum philosophiæ basis est, esse nimirum quatuor rerum matrices sive elementa, in quibus semina rerum sive

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species fœtus suos absolvunt, atque producta eorum quadriformia esse, pro differentia scilicet cujusque elementi: adeo ut in cœlo, nëre, aqua, terra, nulla species inveniatur, quæ non habeat in tribus reliquis conjugatum aliquod et quasi parallelum, (nam hominem etiam pantomimum effeeerunt, ex omnibus conflatum, abusi elegantia vocabuli microcosmi,) hoc, inquam, commentum neminem judicio sedatum post se traxerit: quin et existimamus huic phantasticæ rerum naturalium phalangi peritum naturæ contemplatorem vix inter somnia sua locum daturum.

Verum illud non incommode accidit ad præcavendum, quod hæc philosophia (ut cœpimus dicere) erroris genere, veluti antistropha vulgari philosuphiæ sit: vulgaris enim philosophia ad materiam inventionis parum ex multis, hæc multum e paucis decerpit. Nos tamen, filii, libenter Paracelsum hominem, ut conjicere licet, satis vocalem nobis præconem exoptemus, ut illud lumen naturæ, quod toties inculcat, celebret, et proclamet.

Atque mentio chemistarum nos admonet, ut aliquid etiam de magia naturali ea, quæ nnne hoc vocabulum solenne et fere sacrum inquinavit, dicamus: ea enim inter philosophos chemicos in honore esse consuevit. Quæ nubis in hujusmodi sermone inferior videtur, quam ut condemnetur: sed levitate ipsa effugiat. Quid enim illa ad nos, cujus dogmata plane phantasia et superstitio; opera præstigiæ et imposturæ? nam inter innumera falsa, si quid ad effectum perducitur, hujusmodi semper est, ut sit ad novitatem et admirationem confieta, non ad usum ant accommodata aut destinata. Etenim evenit fere semper de magicis experimentis, quod poëta lascivus lndit, " pars minima est ipsa puella sui;" quemadmodum autem philosophiæ proprium est efficere, ut omnia minus quam sint admiranda videantur propter demonstrationes; ita et imposturæ non minus proprium est, ut omnia magis quam sunt admiranda videantnr propter ostentationem et falsum apparatum. Atque ista tamen vanitas nescio quo modo contemnitur et recipitur: unde enim satyrion ad venerem, pulmones vulpis ad pbthisim, nisi ex hac officina? Verum nimis multa de nugis; nimis sane, si, ut ineptæ, ita innoxiæ essent.

Resumamus orationis filum, et philosophiam, quam in manibus habemus, ex signis excutiamus; ista enim, filii, inseri oportuit ad intelleetus vestri præparationem, quæ res sola nunc agitur. Duplex enim est animorum præoccupatio seu mala inclinatio ad nova, quando ea proponi contigeret: una ab insita opinione de placitis receptis, altera ab anticipatione sive præfiguratione erronea de re ipsa quæ affertur, ac si pertineret ad aliqua ex jampridem damnatis et rejectis, aut saltem ad ea quæ animus ob levitatem aut absurditatem fastidit.

Itaque jam reversi de signis dispiciamus. Atque, filii, inter signa nullum est magis certum aut nobile quam ex fructibus. Quemadmodum enim in religione cavetur, ut fides ex operibus monstretur, idem etiam ad philosophiam optime traducitur, ut vana sit quæ sterilis. Atque eo magis, si loco fructuum uvæ vel olivæ producat disputationum et contentionum carduos et spinas: de vestra autem philosophia vereor ne nimis vere cecinerit poëta non solum illo carmine;

" Infelix lolium et steriles dominantur avenæ:"

sed et illo;

" Candida succinctam latrantibus inguina monstris."

Videtur enim illa ex longinquo visa virgo, specie non indecora, sed partibus superioribus: habet enim generalia quædam non ingrata, et tanquam invitantia; cum vero ad particularia ventum sit, veluti ad uterum et partes generationis, atque ad id ut aliquid ex se edat, tum demum, loco operum et actionum, quæ contemplationis proles est digna et legitima, monstra illa invenias resonantia, et oblatrantia, et ingeniorum naufragiis famosa.

Atque hujus mali auctor imprimis Aristoteles, altrix ista vestra philosophia. Illi enim vel ludo vel gloriæ erat quæstiones minus utiles, primo subornare, deinde confodere; ut pro assertore veritatis contradictionum artifex sit. Pessimo enim et exemplo et successu scientia traditur per quæstiones subministratas, earumque solutiones. Qui enim bene affirmat et probat, et constituit et componit; is errores et objectiones longe summovet et veluti eminus impedit et abigit; qui autem cum singulis colluctatur, is exitum rei nullum invenit, sed disputationes serit. Quid enim opus sit ei, qui unum luminis et veritatis corpus clarum et radiosum in medio statuit, parva quædam et pallida confutationum ellychnia ad omnes errorum angulos circumferre; solventi alia dubia, alia per ipsam illam solutionem excitanti ac veluti generanti? verum id curæ, ut videtur, præcipue fuit Aristoteli, ut homines haberent parata in singulis quæ pronunciarent, quæ responderent, et per quæ se expedirent, potius, quam quid penitus crederent, aut liquido cogitarent, aut vere scirent. Philosophia autem vestra tam bene auctorem refert, ut quæstiones, quas ille movit, illa figat et faciat æternas; ut quæri videatur, non ut veritas eruatur, sed ut disputatio alatur: adeo ut Nasicæ sententia illa Catonis præponderet. Neque enim illud agitur, ut, temporis progressu sublatis dubiis, tanquam hostibus a tergo, ad ulteriores provincias penetretur; sed ut perpetuæ istæ quæstiones, tanquam Carthago, militiam istam disputandi exerceant.

Quod vero ad operum fructum et proventum attinet; existimo ex ista philosophia, per tot annorum spatia laborata et culta, ne unum quidem experimentum adduci posse, quod ad hominum statum levandum et locupletandum spectet, et philosophiæ speculationibus vere acceptum referri possit: adeo ut brutorum animalium instinctus plura inventa pepererint, quam doctorum hominum sermones. Sane Celsus ingenue et prudenter fatetur experimenta medicinæ primo inventa fuisse, ac postea homines circa ea philosophatos esse, et causas explorasse, et assignasse; non ordine inverso evenisse, ut ex philosophia et causarum cognitione ipsa experimenta deprompta essent; neque hic finis. Non male enim merita esset philosophia ista de practica, licet eam experimentis non auxisset; si tamen eam ejus castiorem et prudentiorem reddidisset

(quod fortasse facit) atque interim ejus incrementis et progressibus nihil obfuisset. Illud autem magis damnosum, et perniciosum, quod inventa non solum non edat, sed etiam opprimat et extinguat.

Nam affirmare licet, filii, verissime, Aristotelis de quatuor elementis commentum, rem certe obviam et pinguem, quia hujusmodi corpora in maxima quantitate et mole cernuntur (cui tamen ille potius auctoritatem quam principium dedit; cum Empedoclis esset, a quo etiam melius erat positum, quod postea avide a medicis arreptum, quatuor complexionum, quatuor humorum, quatuor primarum qualitatum conjugationes post se traxit); tanquam malignum et infaustum sidus, infinitam, et medicinæ, et compluribus rebus mechanicis sterilitatem attulisse, dum homines, per hujusmodi concinnitates et compendiosas ineptias sibi satisfieri patientes, nil amplius curant: et vivas et utiles rerum observationes prorsus omiserunt. Itaque si illud verum, "Ex fructibus eorum," videtis certe quo res redierit.

Agite vero, filii, et signa ex incrementis capiamus: certe, si ista doctrina plane instar plantæ a stirpibus suis revulsæ non esset, sed gremio et utero naturæ adhæreret, atque ab eadem alerctur; id minime eventurum fuisset, quod per annos bis mille jam fieri videmus, ut scientiæ in eodem fere statu maneant et hæreant, neque augmentum aliquod memorabile sumpserint. Poliuntur fortasse nonnunquam ab aliquo, et illustrantur, et accommodantur, (dum tamen interim ab infinitis lacerentur, et deformentur, et inquinentur,) sed nteunque non dilatantur, aut amplificantur. In artibus autem mechanicis contra evenire videmus; quæ ut spiritu quodam repletæ vegetant et crescunt, primo rudes, deinde commodæ, post excultæ, sed perpetuo auctæ: philosophiæ autem et scientiæ intellectus, statuarum more, adorantur et celebrantur, sed non moventur. Quinetiam in primo nonnunquam auctore maxime florent: et deinceps declinant, et exarescunt.

Neque vero mirum est ista discrimina inter mechanicam et philosophiam conspici, cum in illa singulorum ingenia misceantur, in hac corrumpantur et destruantur. Quod si quis existimet, scientiarum, ut rerum cæterarum, esse quendam statum, idque fere in tempus unius auctoris incidere, qui beneficio temporis usus, et suæ ætatis princeps, inspectis reliquis scriptoribus et judicatis, scientias ipsas absolvat et perficiat; quod postquam factum sit, juniores rite palmas secundas petere ut hujusmodi auctoris opera vel explicent vel digerant, vel pro sui seculi rationes palato accommodent et vertant: nœ ille majorem rebus humanis prudentiam, et ordinem, et felicitatem tribuit, quam experiri fas est, res enim casum recipit, nisi quod vanitas hominum etiam fortuita in deterius detorquet. Nam vere sic se res habet; postquam scientia aliqua multorum observatione et diligentia, dum alius alia apprehendit, per partes tentata scrio et tractata sit, tum cxoriri aliquem mente fidentem, lingua potentem, methodo celebrem, qui corpus unum ex singulis pro suo arbitrio efficiat et posteris tradat: plerisque corruptis et depravatis, et cum certissima omissione omnium, quæ altiores et digniores contemplationes exhibere possint, ut opinionum immodicarum et extravagantium: et posteri rursus, facilitate rei et compendio gaudentes, sibi gratulantur ac nil ulterius quærunt, sed ad illa ministeria servilia, quæ diximus, se convertunt. Verum nobis, filii, pro certo sit, quæ in natura fundata sunt, ut aquas perennes, perpetuo novas scaturigines et emanationes habere; quæ autem in opinione versantur, variari fortasse sed non augeri.

Habemus et aliud signum, si modo signi appellatio in hoc competit: cum potius testimonium sit, imo testimoniorum omnium validissimum, hoc est, propriam auctorum, quorum fidei vos committitis, confessionem et judicium. Nam et illi ipsi, qui dictaturam quandam in scientiis invaserunt, et tanta fiducia de rebus pronunciant; tamen per intervalla, cum ad se redeunt, ad quærimonias demum de naturæ subtilitate, rerum obscuritate, humani ingenii infirmitate, et similia se convertunt: neque propterea, filii, hæc modestiæ aut humilitati, virtutibus in rebus intellectualibus omnium felicissimis, deputetis: non tam facilcs, aut boni fieritis: cum contra ista non confessio, sed professio, sive prædicatio ex superbia, invidia, atque id genus affectibus ortum pro certo habeat; id enim prorsus volunt, quicquid in scientiis sibi ipsis aut magistris suis incognitum aut intactum fuerit, id extra terminos possibiles poni et removeri: hæc est illa modestia atque humilitas.

Itaque pessimo fato res geritur. Nil enim in his rerum humanarum angustiis aut ad præsens magis deploratum, aut in futurum magis ominosum est, quam quod homines ignorantiam etiam ignominiæ (ut nunc fit) eximant, atque artis suæ infirmitatem in naturæ calumniam vertant: et quicquid ars illa sua non attingit, id ex arte scitu aut factu impossibile supponant. Neque sane damnari potest ars, cum ipsa judicet; ex hoc fonte haud paucas opiniones et placita in philosophia reperiatis, quæ nihil alind, quam quæsitam istam, et artificiosam, et in cognoscendo, et in operando desperationem, ad artis decus et gloriam perditissimo hoc modo tuendum, sapiant et foveant.

Hinc schola Academica, quæ acatalepsiam ex professo tenuit, et homines ad sempiternas tenebras damnavit. Hinc opinio, quod formæ sive veræ rerum differentiæ inventu impossibiles sunt; ut homines in atriis naturæ perpetuo obambulent, nec intra palatium aditum sibi muniant. Hinc positiones illæ infirmissimæ, calorem solis et ignis toto genere differre, atque compositionem opus hominis, mistionem opus solius naturæ esse: ne forte ars naturam, ut Vulcanus Minervam solicitare aut expugnare tentet aut speret; et compluria hujusmodi, quæ tam ad confessionem temitatis propriæ, quam ad repressionem industriæ alienæ, pertinent.

Itaque neutiquam vobis, filii, pro amore et indulgentia nostra consuluero, ut cum rebus non solum desperatis, sed et desperationi devotis fortunas vestras misceatis. Verum, filii, tempus fugit, dum capti amore et rerum et vestrum circumvectamur, ac omnia movemus, et initiationem hanc vestram, instar Aprilis aut veris cujusdam, ad congelationem omnem et obstinationem solvendam et aperiendam esse cupimus.

Restat signum certissimum de modis. Modi enim faciendi sunt, potentia, res ipsæ; et prout bene aut

prave institutæ fuerint, ita res et effecta se habent. Itaque si modi hujus vestræ philosophiæ condendæ nec debiti sint nec probabiles, non videmus quam spem foveatis, nisi credulam et levem. Atque certe, filii, si obeliscus aliquis magnitudine insignis ad triumphi fortasse aut hujusmodi magnificentiæ decus transferendus esset, atque id homines nudis manibus tentarent; annon eos helleboro opus habere cogitaretis? quod si numerum operariorum augerent, atque hoc modo se valere posse confiderent, annon tanto magis? Quod si etiam delectum adhiberent, et imbeciliores separarent, et robustis tantum et vigentibus uti vellent, et hinc demum se voti compotes fore præsumerent; aut, ne hoc quidem contenti, etiam artem athleticam consulerent, ac omnes eum manibus et lacertis et nervis ex arte bene unctis et medicatis adesse juberent; annon prorsus eos dare operam, ut cum ratione quadam et prudentia insanirent, clamaretis? et tamen simili homines malesano impetu feruntur in intellectualibus, dum intellectum veluti nudum applicant, et ab ingeniorum vel multitudine vel excellentia magna sperant, vel etiam dialecticis, quæ mentis quædam athletica censeri possit, ingeniorum nervos roborant: neque machinas adhibent, per quas vires et singulorum intendantur, et omnium coëant.

Atque ut menti debita auxilia non subministrant, ita nec naturam rerum debita observantia prosequuntur. Quid enim dicemus, an nihil aliud est philosophiam condere, quam ex paucis vulgaribus et obviis experimentis de natura judicium facere; ac dein tota secula in meditationibus volutare? Atque, filii, nesciebam nos tam naturæ fuisse familiares, ut ex tam levi et perfunctoria salutatione ea nobis ant arcana sua patefacere aut beneficia impertire dignaretur. Certe nobis perinde facere videntur homines, ac si naturam ex longinqua et prælta turri despiciant et contemplentur; quæ imaginem ejus quandam, seu nubem potius imagini similem, ob oculos ponat: rerum autem differentias (in quibus res hominum et fortunæ sitæ sunt) ob earum minutias et distantiæ intervallum confundat et abscondat. Et tamen laborant et nituntur, et intellectum tanquam oculos contrahunt, ejusdemque aciem meditatione figunt, agitatione acuunt, quinetiam artes argumentandi, veluti specula artificiosa, comparant, ut istiusmodi differentias et subtilitates naturæ mente comprehendere et vincere possint. Atque ridicula certe esset et præfracta sapientia et sedulitas, si quis, ut perfectius et distinctius cernerct, vel turrim conscendat, vel specula applicet, vel palpebras adducat, cum ei liceat, absque universa ista operosa et strenua machinatione et industria, fieri voti compos per rem facilem, et tamen ista omnia beneficio et usu longe superantem: hoc est, ut descendat et ad res propius accedat. Atque certe in intellectus usu similis nos exercet imprudentia.

Neque, filii, postulare debemus ut natura nobis obviam eat: sed satis habemus, si accedentibus nobis, idque cultu debito, se conspiciendum det. Quod si cui in mentem veniat opinari tale quippiam, etiam antiquos atque ipsum Aristotelem proculdubio a meditationum suarum principio magnam vim et copiam exemplorum sive particularium paravisse, atque eandem viam, quam nos veluti novam indicamus et signamus, revera iniisse et confecisse, adeo ut actum agere videri possimus: certe, filii, hæc de illis cogitare non est integrum; formam enim et rationem suam inquirendi et ipsi profitenter et scripta eorum imaginem expressam præ se ferunt. Illi enim statim ab inductionibus nullius pretii ad conclusiones maxime generales, tanquam disputationum polos, advolabant, ad quarum constantem et immotam veritatem reliqua expediebant. Verum scientia constituta, tum demum siqua controversia de aliquo exemplo vel instantia mota esset, ut positis suis refragante: non id agebant ut positum illud emendaretur; sed posito salvo hujusmodi instantias quæ negotium faciebant, aut per distinctionem aliquam subtilem et sapientem in ordinem redigebant, aut per exceptionem plane (homines non mali) dimittebant. Quod si instantiæ aut particularis rei non contradictoriæ reconciliatio, sed obscuræ ratio quæreretur, eam ad speculationes suas quandoque ingeniose accommodabant: quandoque misere torquebant: quæ omnis industria et contentio res sine fundamento nobis videtur.

Itaque nolite commoveri, quod frequens alicubi inter nonnulla Aristotelis scripta inveniatur exemplorum et particularium mentio. Noveritis enim, id sero, et postquam decretum fuisset, factum fuisse: illi enim mos erat non liberam experientiam consulere, sed captivam ostentare; nec eam ad veritatis inquisitionem promiscuam et æquam, sed ad dictorum suorum fidem solicitatam et electam adducere. Neque rursus tale aliquod vobiscum cogitate, eam, quam nos tantopere desideramus, differentiarum subtilitatem in distinctionibus philosophorum scholasticorum haberi, atque adeo elucescere: neque enim existimetis ab hac præpostera subtilitate primæ negligentiæ et festinationi et temeritati subventum esse. Longe abest, filii, ut hoc fieri possit; quin, credite mihi, quod de fortuna dici solet, id de natura verissimum est, eam a fronte capillatam, ab occipitio calvam esse. Omnis enim ista sera subtilitas et diligentia, postquam verum tempus observationis præterierit, naturam prensare aut captare potest, sed nunquam apprehendere aut capere.

Equidem satis scio, idque vos non ita multo post experiemini: postquam veræ et nativæ rerum subtilitati, et differentiis in experientia signatis et expressis, et sensui subjectis, aut saltem per sensum in lucem extractis, paululum insuevistis; continuo subtilitatem illam alteram disputationum et verborum, quæ cogitationes vestras non sine magna admiratione occupavit et tenuit, quasi pro re ludicra, et larva quadam, et incantatione, habituri sitis.

Quare, missis istis philosophiis abstractis, vos et ego, filii, rebus ipsis nos adjungamus: neque ad sectæ condendæ gloriam animum adjiciamus; sed utilitatis et amplitudinis humanæ curam serio suscipiamus; atque inter mentem et naturam connubium castum et legitimum (pronuba misericordia divina) firmemus; precati etiam Deum, cujus numine et nutu hæc fiunt, quique ut hominum et rerum, ita luminum et consolationum pater est, ut ex illo connubio, non phantasiæ monstra, sed stirps heroum, quæ monstra domet et extinguat, hoc est, inventa

salutaria et utilia ad necessitatem humanam (quantum fieri datur) debellandas et relevandas, suscipiantur. Hoc epithalamii votum sit.

Certe, filii, facultates, artium et scientiarum omnium consensu, aut empiricæ, aut rationales sunt. Has autem bene commistas et copulatas adhuc videre non licuit. Empirici enim, formicæ more, congerunt tantum et utuntur. Rationales autem, aranearum more, telas ex se conficiunt. Apis ratio media est, quæ materiam ex floribus tam horti quam agri elicit, sed simul etiam eam propria facultate vertit et digerit. Neque absimile veræ philosophiæ opificium est, quæ ex historia naturali et experimentis mechanicis præbitam materiam, non in memoria integram, sed in intellectu mutatam et subactam reponit. Itaque hujusmodi mellis cœlestia dona sperate: neque dicite cum pigro, "Leo est in via:" sed vincula quæ vos præmunt excutite, et vos recipite.

Atque sane, post virtutem vestram propriam, nihil animos vobis magis addiderit, quam si industriam, et felicitatem, et facinora ætatis nostræ cogitetis. Nos nostrum *plus ultra* antiquorum *non ultra* haud vane opposuimus: nos iidem, contra antiquorum *non imitabile fulmen* esse; *imitabile fulmen* esse, minime dementes, sed sobrii, ex novarum machinarum experimento et demonstratione, pronuntiamus. Quin et cœlum ipsum immitabile fecimus. Cœli enim est, circuire terram: quod et nostræ navigationes pervicerunt. Turpe autem nobis sit, si globi materiati tractus, terrarum videlicet et marium, nostris temporibus in immensum aperti et illustrati sint: globi autem intellectualis fines inter veterum inventa et angustias steterint.

Neque parvo inter se nexu devincta et conjugata sunt ista duo, perlustratio regionum et scientiarum. Plurima enim per longinquas navigationes et peregrinationes in natura patuerunt, quæ novam sapientiæ et scientiæ humanæ lucem affundere possint, et antiquorum opiniones et conjecturas experimento regere. Eadem duo non ratione solum, sed etiam vaticinio conjuncta videntur. Nam eo prophetæ oraculum haud obscure spectare videtur: ubi de novissimis temporibus loquutus, illud subjungit, "Multi pertransibunt, et multiplex erit scientia:" ac si orbis terrarum pertransitus sive peragratio, et scientiarum augmenta sive multiplicatio, eidem ætati et seculo destinarentur.

Præsto etiam est imprimendi artificium, veteribus incognitum, cujus beneficio singulorum inventa fulguris modo transcurrere possint, et subito communicari ad aliorum studia excitanda, et inventa miscenda. Quare utendum est ætatis nostræ prærogativa, neque committendum, ut, cum hæc tanta vobis adsint, vobis ipsi desitis. Nos autem, filii, ab animorum vestrorum præparatione auspicati, in reliquis vobis non deerimus. Probe enim novimus tabellas mentis a tabellis communibus differre. In iis non alia inscripseris, nisi priora deleveris; in illis priora ægre deleveris, nisi nova inscripseris.

Itaque rem in longum non differemus: illud itidem vos monentes, ne tanta vobis de nostris inventis pollicearnini, quin meliora a vobis ipsis speretis. Nos enim Alexandri fortunam nobis spondemus, (neque vanitatis nos arguatis antequam rei exitum audiatis,) illius enim res gestæ recenti memoria ut portentum accipiebantur.

Ita enim loquitur unus ex æmulis oratoribus: "Nos certe vitam humanam non degimus; sed in id nati sumus, ut posteri de nobis portenta prædicent." Sed postquam deferbuisset ista admiratio, atque homines rem attentius introspexissent, operæ pretium est animadvertere quale judicium de eo faciat scriptor Romanus, "Nil aliud quam bene ausus est vana contemnere." It et nos simile quiddam a posteris audiemus; postquam emancipati, et sui jam facti, et proprias vires experti, initia nostra magnis intervallis superaverint. In quo sane judicio illud recte, nostra nil magni esse: illud non recte, si ausis tribuant quæ humilitati debentur: humilitati (inquam) et privationi cuidam istius humanæ superbiæ, quæ universa perdidit, quæque volucres quasdam meditationes loco divinæ in rebus signaturæ conceperit. Hac enim ex parte revera nobis gratulamur, et eo nomine felices nos et bene de genere humano meritos esse existimamus, quod ostendimus, quid vera et legitima spiritus humani humiliatio possit. Verum quid nobis ab hominibus debeatur, ipsi viderint; nos certe nos nostraque vobis debemus.

Omnibus qui aderant digna magnitudine generis et nominis humani oratio visa est, et tamen libertati quam arrogantiæ, propior. Ita autem inter se colloquebantur: se instar eorum esse, qui ex locis opacis et umbrosis in lucem apertam subito exierint, cum minus videant quam prius; sed cum certa et læta spe facultatis melioris.

Tum ille qui hæc narrabat; Tu vero quid ad ista dicis? inquit. Grata sunt (inquam) quæ narrasti. Atque (inquit) si sunt, ut dicis, grata, si tu forte de his rebus aliquid scripseris, locum invenias ubi hæc inseras, neque peregrinationis nostræ fructus perire patiaris. Æquum postulas, inquam, neque obliviscar.

FRANCISCI BACONI

APHORISMI ET CONSILIA,

DE

AUXILIIS MENTIS, ET ACCENSIONE LUMINIS NATURALIS.

Homo, naturæ minister et interpres, tantum facit et intelligit, quantum de ordine naturæ opere vel mente observaverit; nec amplius novit aut potest.

Manus hominis nuda, quantumvis robusta et constans, ad opera pauca et facile sequentia sufficit: eadem, ope instrumentorum, multa et reluctantia vincit. Similis est et mentis ratio.

Instrumenta manus, motum aut cient aut regunt; et instrumenta mentis intellectui aut suggerunt aut cavent.

Super datam materiæ basim naturam quamvis imponere, intra terminos possibiles, intentio est humanæ potentiæ. Similiter dati effectus in quovis subjecto causas nosse, intentio est humanæ scientiæ: quæ intentiones in idem coincidunt. Nam quod in

contemplatione instar causæ est, in operatione instar medii est.

Qui causam alicujus naturæ, veluti albedinis aut caloris, in certis tantum subjectis novit, ejus scientia imperfecta est. Et qui affectum super certam tantum materiam ex iis, quæ sunt susceptibiles, inducere potest; ejus potentia pariter est imperfecta.

Qui causas naturæ alicujus in aliquibus subjectis tantum novit, is efficientem aut materiatam causam novit, quæ causæ fluxæ sunt, et nihil aliud, quam vehicula et causæ formam deferentes. Qui autem unitatem naturæ in materiis dissimillimis comprehendit, is formas rerum novit.

Qui efficientes et materiatas causas novit, is jampridem inventa componit aut dividit, aut transfert aut producit; etiam ad nova inventa in materia aliquatenus simili et præparata pertingit: terminos rerum altius fixos non movet.

Qui formas novit, is quæ adhuc facta non sunt, qualia nec naturæ vicissitudines, nec experimentales industriæ unquam in actum produxissent, neque cogitationem humanam subitura fuissent, detegit et educit.

Eadem est veritatis et potestatis via et perfectio; hæc ipsa ut formæ rerum inveniantur; ex quarum notitia sequitur contemplatio vera et operatio libera.

Formarum inventio simplex est et unica, quæ procedit per naturarum exclusionem sive rejectionem. Omnes enim naturæ, quæ aut data natura præsente absunt, aut data natura absente adsunt, ex forma non sunt; atque post rejectionem aut negationem completam, manet forma et affirmatio. Exempli gratia, si caloris formam inquiras, et aquam calentem invenias, nec lucidam, rejice lumen: si cærem tenuem invenias, nec calidum, rejice tenuitatem. Hoc breve dictu est; sed longo circuitu ad hoc pervenitur.

Prolatio verborum contemplativa aut operativa re non differunt. Cum enim hoc dicis, lumen non est ex forma caloris; idem est si dicas: in calore producendo non necesse est, ut etiam lumen produeas.

[*Reliqua non erant perfecta.*]

Neque hæc nomine nostro eunt. Tu, Pater, conversus ad opera, quæ fecerunt manus tuæ, vidisti quod omnia essent bona valde: homo autem conversus ad opera, quæ fecerunt manus suæ, vidit quod omnia essent vanitas et vexatio spiritus. Itaque si in operibus tuis sudabimus, facies nos gratulationis tuæ et sabbati tui participes. Suppliees rogamus ut hæc meus nobis constet; atque ut per manus nostras familia humana novis eleemosynis tuis dotetur. Hæc æterno amori tuo commendamus, per Jesum nostrum, Christum tuum, nobiscum Deum.

DE INTERPRETATIONE NATURÆ

SENTENTIÆ XII.

DE CONDITIONE HOMINIS.

1. Homo, naturæ minister et interpres, tantum facit aut intelligit, quantum de naturæ ordine re vel mente observavit, ipse interim naturæ legibus obsessus.

2. Terminus itaque humanæ potentiæ ac scientiæ in dotibus, quibus ipse præditus est a natura ad movendum et percipiendum, tum etiam in statu rerum præsentium. Ultra enim has bases illa instrumenta non proficiunt.

3. Dotes hæ per se tenues et ineptæ, rite tamen et ordine administratæ tantum possunt, ut res a sensu et aetu remotissimas judicio et usui eorum sistant, majoremque et operum difficultatem et scientiæ obscuritatem superent, quam quis adhuc optare didicerit.

4. Una veritas, una interpretatio: sensus autem obliquus, animus alienus, res importuna; ipsum tamen interpretationis opus magis declinans quam difficile.

DE IMPEDIMENTIS INTERPRETATIONIS.

5. Quisquis dubitationis impos, et asserendi avidus, principia demum statuet probata (ut credit) concessa et manifesta, ad quorum immotam veritatem cætera ut pugnantia vel obsecundantia recipiet vel rejiciet, is res cum verbis, rationem eum insania, mundum eum fabula commutabit, interpretari non poterit.

6. Qui omnem rerum distinctionem, quæ in constitutis vulgo speciebus, vel etiam inditis nominibus elucescit, non miscuerit, confuderit, et in massam redegerit, non unitatem naturæ, non legitimas rerum lineas videbit, non interpretari poterit.

7. Qui primum et ante alia omnia animi motus humani penitus non explorarit, ibique scientiæ meatus et errorum sedes accuratissime descriptas non habuerit, is omnia larvata et veluti incantata reperiet, fascinum ni solverit, interpretari non poterit.

8. Qui in rerum obviarum et compositarum causis exquirendis, veluti flammæ, somnii, febris, versabitur, nec se ad naturas simplices conferet, ad istas primo, quæ populari ratione tales sunt; deinde etiam ad eas, quæ arte ad veriorem simplicitatem reductæ sunt et veluti sublimatæ, is fortasse si cætera non peccat, addet inventis quædam non spernanda, et inventis proxima. Sed nil contra majores rerum secularitates movebit, nec interpres dicendus erit.

DE MORIBUS INTERPRETIS.

9. Qui ad interpretandum accesserit, ita se comparet et componat; sit nec novitatis, nec consuetudinis, vel antiquitatis sectator, nec contradicendi licentiam, nec auctoritatis servitutem ampleetatur. Non affirmandi sit properus, nec in dubitationem solutus, sed singula gradu quodam probationis insignita provehat. Spes ei laboris, non otii auctor sit; res non raritate, difficultate, aut laude, sed veris momentis æstimet. Privata negotia personatus administret, rerum tamen provisos subvenerans. Errorum in veritates, et veritatum in errores subingressus prudenter advertat, nihil contemnens aut admirans. Naturæ suæ commoditates norit. Naturæ aliorum morem gerat, eum nemo lapidi impingenti succenseat. Uno veluti ocolo rerum naturas, altero humanos usus pererret. Verborum mixtam naturam et juvamenti et nocumenti imprimis participem distincte sciat.

Artem inveniendi eum invento adolescere statuat. Sit etiam in scientia, quam adeptus est, nec occultanda nec proferenda vanus, sed ingenuus et prudens: tradatque inventa non ambitiose aut maligne, sed modo primum maxime vivaci et vegeto, id est, ad injurias temporis munitissimo, et ad scientiam propagandum fortissimo, deinde ad errores pariendos innocentissimo, et ante omnia, qui sibi legitimum lectorem seponat.

DE OFFICIO INTERPRETIS.

10. Ita moratus et comparatus interpres ad hunc modum procedat. Conditionem hominis reputabit, impedimenta interpretationis removebit, tum ad opus accinetus historiam parabit et ordinatas chartarum sequelas, unaque usus, co-ordinationes, occurrentias et schedulas instituet. Rerum solitudinem et sui similitudinem repræsentabit. Quin et rerum delectum habebit, quæque maxime primitivæ sunt vel instantes, id est, vel rerum aliarum inventioni, vel humanis necessitatibus præcipue conducunt, præordinabit. Instantiarum etiam præeminentias observabit, quæ ad operis compendium plurimum possunt. Atque ita instructus re-ordinationes demum, et chartas novellas, ac ipsam interpretationem facilem jam et sponte sequentem, imo mente fere præreptam, mature et feliciter aggredietur et perficiet. Quod ubi fecerit, continuo veros, æternos, et simplicissimos naturæ motus, ex quorum ordinato et calculatissimo progressu infinita hæc tum præsentis, tum omnis ævi varietas emergit, pura et nativa luce videbit et numerabit. Interimque ab initio operis humanis rebus multa et incognita, velut fœnus, assidue recipere non omittet. Sed hinc denno totus in humanos usus rerumque præsentium statum conversus et intentus, omnia diversa via et ad actionem ordinabit et disponet. Naturis secretissimis alias declaratorias, et absentissimis alias superinductorias assignabit. Et deinde tandem veluti altera natura plerumquitates condet, quarum errores pro monstris sint, salva etiam tamen sibi artis prærogativa.

DE PROVISU RERUM.

11. Tu autem spe et studio languidis hæc hauris, fili, mirarisque si tanta supersit operum fructuosissimorum et prorsus incognitorum ubertas, ea non antehac, aut jam subito esse inventa, simul etiam, cujusmodi ea sint, nominatim requiris, visque tibi aut immortalitatem, aut indolentiam, aut voluptatem transportantem promitti. Verum tu tibi largire, fili, spemque ex scientia auenpabere, ut ex ignorantia desperationem cœpisti. An etiam arte adoptandum est opus? At dubitationi tuæ, quoad licet, satisfaciam, moremque tibi geram. Quod hæc subito nota sint, nil mirum, fili. Scientia celeris, tempus tardi partus est. Etiam nobilia, quæ ante hæc inventa sunt, non luce prioris cognitionis sensim, sed casu (ut loquuntur) affatim inventa sunt. In mechanicis autem est quædam rei jam inventæ extensio, sed novæ inventionis nomen non meretur. Non longum, fili, sed ambiguum est iter. Quod autem hæc non ante hoc tempus in conspectum se dedisse aio, an tibi compertum est quantum omni antiquitati, vel omnibus in regionibus, vel etiam singulis hominibus innotuerit? Sed fere assentior tibi, fili, teque altius manu ducam. Non dubitas quin si homines non forent, multa eorum, quæ arte (ut loquuntur) facta sunt, defutura fuissent, ut statuam marmoream, stragulam vestem. Age vero et homines, an non habent et ipsi suos motus, quibus obtemperant? sane, fili, magis subtiles, et difficilius a scientia comprehensos, sed æque certos. Profecto, inquies, homines voluntati parent. Audio, sed hoc nihil est. Qualis causa est fortuna in universo, talis est voluntas in homine. Si quid ergo nec sine homine producitur, et jacet etiam extra hominis vias, an non nihilo æquale est? Homo etiam in quædam veluti occurrentia impingit, alia fine præviso et mediis cognitis exsequitur. Mediorum tamen notitiam ex obviis sumit. Quo igitur in numero reponentur ea, quæ nec effectum obvium, nec operationis modum et lucem ex obviis sortiuntur. Talia opera Epistemides vocantur, id est, scientiæ filiæ, quæ non alias in actum veniunt, quam per scientiam et interpretationem meram, cum nihil obvii contineant. Inter hæc autem et obvia quot gradus numerari putas? Tene, fili, et obsigna.

12. Postremo loco tibi consulo, fili, quod facto imprimis opus est, hoc est ut mente illuminata et sobria interpretationem rerum divinarum et naturalium distinguas, neve has ullo modo inter se committi patiare. Satis erratum est in hoc genere. Nihil hic nisi per rerum inter se similitudines addiscitur: Quæ licet dissimillimæ videantur, premunt tamen similitudinem germanam interpreti notam. Deus autem tibi tantum similis est absque tropo. Quare nullam ad ejus cognitionem hinc lucis sufficientiam exspecta. Da fidei, quæ fidei sunt.

CAPUT I.

TRADENDI MODUS LEGITIMUS.*

Reperio, fili, complures in rerum scientia, quam sibi videntur adepti, vel proferenda, vel rursus occultanda neutiquam e fide sua ac officio se gerere. Eodem damno, licet culpa fortasse minore, peccant et illi, qui probe quidem morati, sed minus prudentes sunt, nec artem ac præcepta tenent, quo quæque modo sint proponenda. Neque tamen de hac tradentium scientias sive malignitate sive inscitia querela est instituenda. Sane si rerum pondera docendi imperitia fregissent, non immerito quis indignetur. Rerum vero ineptiis docendi importunitatem vel jure deberi existimandum est. Ego autem longe ab his diversus te impertiturus, non ingenii commenta, nec verborum umbras, nec religionem admistam, nec observationes quasdam populares, vel experimenta quædam nobilia in theoriæ fabulas conceptata; sed revera naturam cum fœtibus suis tibi addicturus et manciparus, num videor dignum argumentum præ manibus habere, quod tractandi vel ambitione, vel

* In priori editione caput istud sic inscribitur: "Temporis partus masculus," sive "De interpretatione naturæ," lib. iii.

1. "Perpolitio et applicatio mentis."
2. "Lumen naturæ; seu formula interpretationis."
3. "Natura illuminata; sive veritas rerum."

inscitia, vel vitio quovis polluam? Ita sim, fili, itaque humani in universum imperii angustias nunquam satis deploratas ad datos fines proferam (quod mihi ex humanis solum in votis est) ut tibi optima fide, atque ex altissima mentis meæ providentia, et exploratissimo rerum et animorum statu hæc traditurus sim modo omnium maxime legitimo. Quis tandem (inquies) est modus ille legitimus? Quin tu mitte artes et ambages, rem exhibe nudam nobis, ut judicio nostro uti possimus. Atque utinam, fili suavissime, eo loco sint res vestræ, ut hoc fieri posset. An tu censes, cum omnes omnium mentium aditus ac meatus obscurissimis idolis, iisque alte hærentibus et inustis, obsessi et obstructi sint, veris rerum et nativis radiis sinceras et politas aeras adesse? Nova est ineunda ratio, qua mentibus obductissimis illabi possimus. Ut enim phreneticorum deliramenta arte et ingenio subverturitur, vi et contentione efferantur omnino; ita in hac universali insania mos gerendus est. Quid? leviores illæ conditiones, quæ ad legitimum scientiæ tradendæ modum pertinent, an tibi tam expeditæ et faciles videntur? ut modus innocens sit, id est, nulli prorsus errori ansam et occasionem præbeat? ut vim quandam insitam et innatam habeat tum ad fidem conciliandam, tum ad pellendas injurias temporis, adeo ut scientia ita tradita veluti planta vivax et vegeta quotidie serpat et adolescat? ut idoneum et legitimum sibi lectorem seponat, et quasi adoptet? atque hæc omnia præstiterim necne, ad tempus futurum provoco.

CAPUT II.

Plane autem non dissimulo, fili, mihi quopiam submovendos esse philosophastros istos poëtis ipsis fabulosiores, stupratores animorum, rerum falsarios; et multo etiam magis horum satellites et parasitos, professoriam illam et meritoriam turbam. Quis carmen præit, ut hoc oblivioni devoveam? quod enim veritati silentium, si isti brutis suis et inarticulatis rationibus obstrepant? Verum tutius forsitan fuerit nominatim eos damnare, ne, cum tanta auctoritate vigeant, non nominati excepti videantur; neve quis putet cum inter ipsos tam gravia et internecina exerceantur odia, et tanta dimicatione certetur, me ad has larvarum et umbrarum pugnas alteri parti velut subsidio missum. Itaque citetur Aristoteles, pessimus sophista, inntili subtilitate attonitus, verborum vile ludibrium. Ansus etiam, tum cum forte mens humana ad veritatem aliquam casu quopiam tanquam secunda tempestate delata acquiesceret, injicere durissimas animis compedes, artemque quandam insaniæ componere, nosque verbis addicere. Quin et ex istius sinu educti nobis sunt, ac enutriti, vaferrimi illi nugatores, qui cum a perambulatione mundana, ac omni rerum ac historiæ luce se avertissent, ex hujus maxime præceptorum et positionum ductili admodum materia, et ingenii inquieta agitatione, numerosissimas scholarum quisquilias nobis exhibuere. Iste autem horum dictator tanto illis accusatior, quod etiam in historiæ apertis versatus, subterraneæ alicujus specus opacissima idola retulit. Atque super ipsam quidem historiam rerum particularium quasdam veluti operas arnearum exstruxit, quas causas videri vult, cum sint nullius prorsus roboris vel pretii. Quales etiam nostra ætate multa cum satagentia fabricavit Hieronymus Cardanus, uterque rebus ac sibi discors. Ne vero, fili, cum hanc contra Aristotelem sententiam fero, me cum rebelle ejus quodam neoterico Petro Ramo conspirasse augurere. Nullum mihi commercium cum hoc ignorantiæ latibulo, perniciosissima literarum tinea, compendiorum patre; qui cum methodi sæ et compendii vinculis res torqueat et premat, res quidem, si qua fuit, elabitur protinus et exsilit; ipse vero aridas et desertissimas nugas stringit. Atque Aquinas quidem cum Scoto et sociis etiam in non rebus rerum varietatem effinxit, hic vero etiam in rebus non rerum solitudinem æquavit. Atque hoc hominis cum sit, humanos tamen usus in ore habet impudens, ut mihi etiam pro sophistis prævaricari videatur. Verum hos missos faciamus. Citetur jam et Plato, cavillator urbanus, tumidus poëta, theologus mente captus. Tu certe dum rumores nescio quos philosophicos limares et simul committeres, ac scientiam dissimulando simulares, animosque vagis inductionibus tentares et exsolveres, vel literatorum vel civilium virorum conviviis sermones, vel etiam sermonibus quotidianis gratiam et amorem subministrare potuisti. Verum cum veritatem humanæ mentis incolam, veluti indigenam nec aliunde commigrantem mentireris, animosque nostros ad historiam et res ipsas nunquam satis applicatos et reductos averteres, ac se subingredi, ac in suis cæcis et confusissimis idolis volutare contemplationis nomine doceres, tum demum fraudem capitalem admisisti. Deinde etiam tu scelere haud minore stultitiæ apotheosin introduxisti, et vilissimas cogitationes religione munire ausus es. Nam levius malum est, quod philologorum parens exstitisti, ac tuo ductu et auspiciis plurimi ingenii, fama et cognitionis rerum populari et molli jucunditate capti et contenti, severiorem veri pervestigationem corruperunt. Inter quos fuere Marcus Cicero, et Annæus Seneca, et Plutarchus Chæronæus, et complures alii neutiquam his pares. Nunc ad medicos pergamus; video Galenum, virum angustissimi animi, desertorem experientiæ, et vanissimum causatorem. Tnne, Galene, is es, qui medicorum inscitiam et desidiam etiam infamiæ eximis, et in tuto collocas, artis ac officii eorum finitor ignavissimus? qui tot morbos insanabiles statuendo, tot ægrotorum capita proscribis, horumque spem, illorum industriam præcidis? O canicula, O pestis! Tu mistionis commentum naturæ prærogativam; tu inter calores astri et ignis seditionem avide arripiens et ostentans, ubique humanam potestatem malitiose in ordinem redigis, et ignorantiam desperatione in æternum munire cupis. Do indignitati tuæ ne te amplius morer. Abducas etiam tecum licet socios tuos et fœderatos Arabes, dispensatoriorum conditores, qui pari cum cæteris in theoriis amentia copiosius quidem e supinissimis conjecturis medicinarum vulgarium pollicita magis quam auxilia composuere. Nec non cape comites perfunctoriam neotericorum turbam. Hens nomenclator, suggere! Atqui respondet, ne dignos esse quorum nomina teneat. Sane ut inter hujuscemodi nuga-

tores gradus quosdam agnosco, pessimum et absurdissimum genus eorum, qui methodo et acribologia universam artem comprehendunt, quibus vulgo ob elocutionem et ordinem applauditur ; qualis est Fernelius. Minus incommodi sunt, qui majorem observationum et experimentorum varietatem et proprietatem ostendunt, licet stultissimis causationibus dilutam et immersam, ut Arnoldus de Villa Nova, et alii id genus. Intueor ab altera parte cohortem chemistarum, inter quos se ante alios jactat Paracelsus, qui audacia meruit ut separatim coërceatur. Atque superiores illi, quos modo perstrinximus, mendacia, tu monstra. Quæ tu novis Bacchi oracula in meteoricis fundis, æmule Epicuri? Ille tamen in hac parte tanquam indormiscens et aliud agens, opiniones veluti sorti committit. Tu omni sorte stultior in absurdissimi cujusque mendacii verba jurare paratus es. Verum alia tua videamus. Quas tu fructuum elementorum tuorum inter se imitationes, quas correspondentias, quæ parallela somnias, idolorum conjugator fanatice? Nam hominem scilicet pantomimum effecisti. Quam præclare autem sunt interpunctiones illæ, quibus naturæ unitatem lacerasti, species nimirum tuæ? Quare facilius Galenum fero elementa sua ponderantem, quam te somnia tua ornantem. Illum enim occultæ rerum proprietates, te communes et promiscuæ qualitates exagitant. Nos interim miseros, qui inter tam odiosas ineptias degimus! Principiorum autem triadem, commentum haud ita prorsus inutile et rebus aliqua ex parte finitimum, quam importune inculcat homo imposturæ peritissimus? Audi adhuc crimina graviora. Tu divina naturalibus, sacris profana, fabulis hæreses miscendo, veritatem (sacrilege impostor) tum humanam, tum religiosam polluisti. Tu lumen naturæ (cujus sanctissimum nomen totics impuro ore usurpas) non abscondisti, ut sophistæ, sed extinxisti. Illi experientiæ desertores, tu proditor. Tu evidentiam rerum crudam et personatam contemplationi ex præscripto subjiciens, et substantiarum Proteos pro motuum calculis quærens, scientiæ fontes corrumpere, et humanam mentem exuere conatus es ; et ambages et tædia experimentorum, quibus sophistæ adversi, empirici impares sunt, novis et adscititiis auxisti ; tantum abest ut experientiæ representativam secutus sis, aut noveris. Nec non magorum hiatus ubique pro viribus amplificasti, importunissimas cogitationes spe, spem promissis premens, imposturæ tum artifex tum opus. Invideo tibi, Paracelse, e sectatoribus tuis unum Petrum Severinum virum non dignum qui istis ineptiis immoriatur. Tu certe, Paracelse, ei plurimum debes, quod ea, quæ tu (asinorum adoptive) rudere consueveras, cantu quodam et modulatione, et gratissimo vocum discrimine, jucunda et harmonica effecit, et mendaciorum odia in fabellæ oblectamenta traduxit. Tibi vero, Severine, veniam do, si sophistarum doctrinam, non solum operum effœtam, verum desperationem ex professo captantem, pertæsus, alia rebus nostris labentibus firmamenta quæsivisti. Cumque Paracelsica ista se obtulissent, et ostentationum præconiis et obscuritatis subterfugiis, et religionis affinitatibus, et alio fuco commendata, te in hoc non rerum fontes, sed spei hiatus jacta quodam indignationis dedisti. Rite et ordine feceris, si ab ingenii placitis ad naturæ scita te transtuleris, tibi non modo artem brevem, sed et vitam longam porrectura.

Jam cæteros chemistas sententia in Paracelsum lata defixos cerno obstupescere. Agnoscunt profecto decreta sua, quæ iste magis promulgavit, quam posuit, ac arrogantia pro cautelis (haud plane ex antiqua disciplina) communivit. Ubi sane magna mentiendi reciprocatione inter se conciliati largas ubique spes ostentant, et per experientiæ quidem devia vagi, in quædam utilia casu, non ductu, quandoque impinguntur. In theoriis vero iisdem ab arte sua (utpote fornacis discipuli) non recessernnt. Verum ut delicatus ille adolescentulus cum sealmum in littore reperisset, navem ædificare concupivit: ita carbonarii isti ex pauculis distillationum experimentis philosophiam condere aggressi sunt, ubique istis separationum et liberationum absentissimis idolis obnoxiam. Nec hos tamen uno ordine omnes habeo: siquidem utile genus eorum est, qui de theoriis non admodum soliciti, mechanica quadam subtilitate rerum inventarum extensiones prehendunt; qualis est Bacon. Secleratum et sacrum eorum, qui undique theoriis suis plausus conquirunt, ambientibus etiam et pro iis supplicantibus religione, spe et impostura. Talis est Isaac Hollandus, et turbæ chemistarum pars longe maxima. Age, citetur jam Hippocrates, antiquitatis creatura, et annorum venditor. In cujus viri auctoritatem cum Galenus et Paracelsus magno uterque studio, velut in umbram asini, se recipere contendat, quis non cachinnum tollat? Atque iste homo certe in experientia obtutu perpetuo hærere videtur, verum oculis non natantibus et anquirentibus, sed stupidis et resolutis. Deinde a stupore visu parum recollecto idola quædam non immania quidem illa theoriarum, sed elegantiora ista, quæ superficiem historiæ circumstant, excipit, quibus haustis tumens et semisophista, et brevitate (de illius ætatis more) tectus, oracula demum (ut his placet) pandit, quorum ii se interpretes haberi ambiunt; cum revera nihil aliud agat, quam aut sophistica quædam per abruptas et suspensas sententias tradens redargutioni subducat; aut rusticorum observationes supercilio donet. Atque ad hujus quidem viri instituta, non tam improba quam inutilia, proxime (ut etiam vulgo creditur) accedit Cornelius Celsus, sed intentior sophista, et historiæ modificatæ magis obstrictus, idem moralem moderationem scientiæ progressibus aspergens, et errorum extrema amputans, non prima evellens. Atque de istis verissima quidem hæc sunt. Nunc autem scisciantem te audio, fili, an non forte deteriora, ut fit, voluere? Præsertim cum status scientiæ sit semper fere Democratieus? An non tempus, veluti flumen, levia et inflata ad nos devexit, solida et gravia demersit? Quid veteres illi veritatis inquisitores Heraclitus, Democritus, Pythagoras, Anaxagoras, Empedocles, et alii, alienis, non propriis scriptis noti? Quid denique de silentio et secretis antiquitatis statuis? Ego, fili, ut tibi ex more meo, (id est, usu tuo,) respondeam, antiquitatis fragmentum unum aut alterum (inventorum dico, non librorum) agnoseo: idque ipsum tamen magis ut diligentiæ et ingenuitatis

specimen, quam scientiæ auctoris. De iis vero rebus, quæ cum vestigiis suis anfugere, si innucrem laboriosa esse ista conjecturarum aucupia, nec consentaneum me utilitates in posterum humano generi parantem ad antiquitatis philologiam retrogredi, sat scio pro modestia tua nequiesceres. Veruntamen ut perspiecre possis, quam res præsentes bifrontes vates sint, quamque et futuras et præteritas coram sistant, decrevi utriusque temporis tabulis (quæ non tantum scientiæ decursus et fluxus, sed et alios rerum provisos complectantur) tibi gratificari. Neque tu hoc quale sit (antequam videas) augurere. Non enim cadit in te vera hujusce rei anticipatio: nec si minus ad manus tuas veniat, requiras. Gratificor enim (inquam) quibusdam vestrum hae in re, fili, et delicatioribus spiritus conciliо. Omnino scientia ex naturæ lumine petenda, non ex antiquitatis obscuritate repetenda est. Nec refert quid factum fuerit, illud videndum quid fieri possit. An tu, si regnum tibi armis et victori bello subjugatum traderetur, quæstiones necteres utrum majores tui illud tenuerint necne, et genealogiarum rumores solicitares? Atque hæc de antiquitatis penetralibus dicta sunt. De istis vero sectarum ducibus, quos nominasti, et compluribus aliis id genus, facilis sententia est. Errori varietas, veritati unitas competit. Ac nisi temporum politiæ et provisus ejusmodi ingeniorum peregrinationibus adversiores exstitissent, multæ etiam aliæ errorum oræ fuissent peragratæ. Immensum enim pelagus veritatis insulam circumluit; et supersunt adhuc novæ ventorum idolorum injuriæ et disjectiones. Quinctiam nudiustertius Bernardinus Telesius scenam conscendit, et fabulam novam egit, nec plansu celebrem, nec argumento elegantem. An non vides, fili, tum excentricorum et epicyclorum ingeniatores, tum terræ anrigas, æqua et aneipiti phænomenorum advocatione gaudere? Proraus ita et in universalibus theoriis fit. Nam veluti si quis, lingua tantum vernacula uti sciens (adverte, fili, nam simile est admodum) scripturam ignoti sermonis capiat, ubi paucula quædam verba sparsim observans sæ linguæ vocabulis sono et literis finitima, illa quidem statim ne fidenter ejusdem esse significationis ponit, (licet ab ea sæpius longissime recedant,) postea ex iis invicem collatis reliquum orationis sensum, multo ingenii labore, sed et multa libertate, divinat: omnino tales et isti naturæ interpretes inveniuntur. Nam idola quisque sua (non jam scenæ dico, sed præcipue fori, et specus) veluti linguas vernaculas diversas, ad historiam afferentes, confestim quæ simile aliquid sonant, arripiunt, cætera ex horum symmetria interpretantur.

Atque jam tempus est, fili, ut nos recipiamus et expiemus, utpote qui tam profana et polluta (licet importandi animo) attrectaverimus. Ego vero adversus istos omnes minora, quam pro ipsorum sontissimo reatu, dixi. Tu tamen fortasse minus istam redargutionem intelligis. Nam pro certo habeas, fili, sententias istas, quas adversus istos tuli, nihil minus esse quam contumeliam. Ego enim non, ut Velleius apud Ciceronem, declamator et philologus opiniones cursim perstringens, et magis abjiciens quam frangens, velut Agrippa, neoterieus homo, in istiusmodi sermone ne nominandus quidem, sed trivialis scurra, et singula distorquens, et lusui propinans, (me miserum, qui hominum defectu cum brutis me conferre necesse habeam!) ita me gessi. Verum sub maledicti velo miras accusationum animas, et singulari artificio in singula fere verba contractas, et reductas, et exquisitissima oculi acie in ipsa criminum ulcera directas et vibratas postmodum respiciens videbis. Atque cum isti criminibus et reatu valde inter se mixti et implicati forent, tamen singulos indiciis maxime propriis, iisdem autem capitalibus, reos feci. Mens enim humana, fili, rerum incursibus et observationibus turgida, varias admodum errorum species molitur, et educit. Aristoteles vero velut unius est speeici planta procerior, sic et Plato et alii deinceps. At confutationes particulares requiris. Næ illud peccatum fuerit largiter in humani generis fortunam auream pignus imperii, si ego ad umbrarum fugacissimarum insecutionem deflecterem. Unum, fili, in medio ponendum est veritatis lumen clarum et radiosum, quod omnia collustret, et errores universos momento dispellat. Non infirmi quidam et pallidi lychni ad singulos errorum et mendaciorum angulos et sinus circumferendi sunt. Quare quod petebas detestare, fili, nam profanum est valde. Subinde vero interrogantem te audio, Num quæ isti universi asseruerunt, omnia prorsus vana et falsa fuere? Atqui, fili, infelicitatem jam narras, eamque prodigiosam, non ignorantiam. Nemo enim non quandoque in aliquod verum impingitur. Heraclitum, cum scientiam ab hominibus in mundis privatis, non in mundo communi quæsitam diceret, bene in philosophiæ introitu litasse video. Democritum, cum naturæ immensam varietatem et infinitam successionem tribuens, se e regione sisteret cæterorum fere philosophorum, secularitatibus deditissimorum, et mancipiorum consuetudinis, et hac oppositione utrumque mendacium in se collidendo perderet, et veritati inter extrema viam quandam aperiret, non infeliciter philosophatum esse reputo. Pythagoræ numeros etiam boni ominis loco pono. Dindamum Indum quod morem Antiphysin dixerit, laudo. Quin et Epicurum adversus causarum (ut loquuntur) per intentiones et fines explicationem, disputantem licet pueriliter, et philologice, tamen non invitus audio. Etiam Pyrrhonem et Academicos vacillantes, et e lintre loquentes, et erga idola se gerentes veluti amatores quosdam morosos (qui amasios suos semper probris afficiunt, nunquam desernnt) animi et hilaritatis gratia adhibeo. Nec immerito. Cæteros enim idola prorsum agunt, hos vero in orbem; quod jocosius est. Denique Paracelsum et Severinum eum tantis clamoribus homines ad experientiæ suggestum convocant, præcones mihi exopto. Quid igitur? Num veritatis compotes isti? Nihilo minus. Et rustieorum, fili, proverbia nonnulla apposite ad veritatem dicuntur. Sus rostro si forte humi A literam impresserit, num propterea suspicabere integram tragœdiam, veluti literam unam, ab ea posse describi? Longe alia est ratio, fili, veritatis, quæ est ex scientiæ analogia, alia quæ ex idoli sectione enuntiatur. Illa constans et quota gemina, hæc discors et solitaria. Quod etiam in operibus fit. Pulvis tormentorum si ductu, non casu (ut loquuntur) et impactu inventum fuisset, non

solitarium, sed cum multa inventorum nobilium (quæ sub eundem meridianum cadunt) frequentia prodiisset. Sic et alia tum opera, tum posita. Quare moneo, si forte idolum aliquod alicujus istorum meam, id est, rerum veritatem aliquo in puncto secuerit, noli aut de iis majora, aut de me inferiora cogitare, cum satis appareat ex reliquorum ignoratione ipsa illa non ex scientiæ analogia eos dixisse. Adhuc instas, fili, num ergo universas istorum chartas thuri et odoribus amicula fieri jubes? Non illud dixerim. Manet enim paulisper aliquis eorum usus, tenuis quidem et angustus, et longe alius quam in quem destinatæ erant, ac nunc usurpantur, sed tamen aliquis. Adde et alias multas chartas illis celebritate obscuriores, usu præstantiores esse. Aristotelis et Platonis moralia plerique mirantur: sed Tacitus magis vivas morum observationes spirat. Verum quæ tandem utilitas ex chartis capi possit, quæque aliæ aliis utilitate antecedant, quæque minima pars sint chartarum munera eorum, quæ ad interpretationem naturæ conferunt, suo loco dicetur. Postremo, fili, ita te quærentem audio, Num tu te in istorum omnium locum suffícis? Respondebo, atque id non dissimulanter, et ex intimo sensu meo. Ego, fili suavissime, tibi sanctum, castum, et legitimum connubium cum rebus ipsis firmabo. Ex qua consuetudine (supra omnia epithalamiorum vota) beatissimam prolem vere heroum (qui infinitas humanas necessitates, omnibus gigantibus, monstris, et tyrannis exitiosiores, subacturi sunt, et rebus vestris placidam, et festam securitatem, et copiam conciliaturi) suscipies. Ego, vero, fili, si te jam jam animo ab idolis non repurgato, vertiginosis experientiæ ambagibus committerem, nec tu dudum cito desiderares. Idola autem exuere simplici præcepto meo sine rerum notitia, ne, si velles maxime, posses. In tabulis nisi priora deleveris, non alia inscripseris. In mente contra: nisi alia inscripseris, non priora deleveris. Atque ut hoc fieri posset, ut idola hospitii exueres, tamen periculum omnino est, ut ab idolis viæ non initiatus obruare. Nimis duci assuevisti. Etiam Romæ firmata semel tyrannide semper postea sacramentum in senatus populique Romani nomen irritum fuit. Confide, fili, et da te mihi, ut te tibi reddam.

DE INTERPRETATIONE NATURÆ

PROŒMIUM.

Ego cum me ad utilitates humanas natum existimarem, et curam reipublicæ inter ea esse, quæ publici sunt juris, et velut undam aut auram omnibus patere interpretarer, et quid hominibus maxime conducere posset quæsivi, et ad quid ipse a natura optime factus essem, deliberavi. Inveni autem nil tanti esse erga genus humanum meriti, quam novarum rerum et artium, quibus hominum vita excolatur, inventionem et auctoramentum. Nam et priscis temporibus, apud homines rudes, rudium rerum inventores et monstratores consecratos fuisse, et in deorum numerum optatos, animadverti; et aeta heroum, qui vel urbes condiderunt, vel legumlatores exstiterunt, vel justa imperia exercuerunt, vel injustas dominationes debellarunt, locorum et temporum angustiis circumscripta esse notavi: rerum autem inventionem, licet minoris pompæ sit res, ad universalitatis et æternitatis rationem magis accommodatam esse censui. Ante omnia vero si quis non particulare aliquod inventum, licet magnæ utilitatis, eruat, sed in natura lumen accendat, quod ortu ipso oras rerum, quæ res jam inventas contingunt, illustret, dein paulo post elevatum abstrusissima quæque patefaciat et in conspectum det, is mihi humani in universum imperii propagator, libertatis vindex, necessitatum expugnator, visus est. Me ipsum autem ad veritatis contemplationes, quam ad alia, magis fabrefactum deprehendi, ut qui mentem et ad rerum similitudinem (quod maximum est) agnoscendum satis mobilem, et ad differentiarum subtilitates observandas satis fixam et intentam haberem, qui et quærendi desiderium, et dubitandi patientiam, et meditandi voluptatem, et asserendi cunctationem, et resipiscendi facilitatem, et disponendi solicitudinem tenerem, quique nec novitatem affectarem, nec antiquitatem admirarer, et omnem impostnram odissem. Quare naturam meam cum veritate quandam familiaritatem et cognationem habere judicavi. Attamen cum genere et educatione rebus civilibus imbutus essem, et opinionibus aliquando, utpote adolescens, labefactarer, et patriæ me aliquid peculiare, quod non ad omnes alias partes ex æquo pertineat, debere putarem, speraremque me, si gradum aliquem honestum in republica obtinerem, majore ingenii et industriæ subsidio quæ destinaveram perfecturum, et artes civiles didici, et qua debui modestia amicis meis, qui aliquid possent, salva ingenuitate, me commendavi. Accessit et illud, quod ista, qualiacunque sint, non ultra hujusce mortalis vitæ conditionem et culturam penetrant; subiit vero spes me, natum religionis statu haud admodum prospero, posse, si civilia munia obirem, et aliquid ad animarum salutem boni procurare. Sed cum studium meum ambitioni deputaretur, et ætas jam consisteret, ac valetudo affecta et malæ tarditatis meæ me admoneret, et subinde reputarem me officio meo nullo modo satisfacere, cum ea, per quæ ipse hominibus per me prodesse possem, omitterem, et ad ea, quæ ex alieno arbitrio penderent, me applicarem, ab illis cogitationibus me prorsus alienavi, et in hoc opus ex priore decreto me totum recepi; nec mihi animum minuit, quod ejus, quæ nunc in usu est, doctrinæ et eruditionis declinationem quandam et ruinam in temporum statu prospicio; tametsi enim barbarorum incursiones non metuam, (nisi forte imperium Hispanum se corroboraverit, et alios armis, se onere oppresserit et debilitarit,) tamen ex bellis civilibus (quæ mihi videntur, propter mores quosdam, non ita pridem introductos, multas regiones peragratura) et ex sectarum malignitate, et ex compendiariis istis artificiis et cautelis, quæ in eruditionis locum surrepserunt non minor in literas et scientias procella videbatur impendere. Nec typographiorum officina his malis sufficere queat. Atque ista quidem imbellis doctrina, quæ otio alitur, præmio et laude efflorescit, quæ vehementiam opinionis non sustinet, et artificiis et imposturis elu-

ditur, iis quæ dixi impedimentis obruitur. Longe alia ratio est scientiæ, cujus dignitas utilitatibus et operibus munitur. Ac de temporum injuriis fere securus sum, de hominum vero injuriis non laboro. Si quis enim me nimis altum sapere dicat, respondeo simpliciter, in civilibus rebus esse modestiæ locum; in contemplationibus veritati. Si quis vero opera statim exigat, aio sine omni impostura, me, hominem non seuem valetudinarium, civilibus studiis implicatum, rem omnium obscurissimam sine duce ac luce aggressum, satis profecisse, si machinam ipsam ac fabricam exstruxerim, licet eam non exercuerim aut moverim. Ac eodem candore profiteor, interpretationem naturæ legitimam in primo adsensu, antequam ad gradum certum generalium perventum sit, ab omni applicatione ad opera puram ac sejunctam servari debere. Quin et eos omnes, qui experientiæ se undis aliqua ex parte dedideruut, eum animo parum firmi, aut ostentationis cupidi essent, in introitu operum pignora intempestive investigasse, et inde exturbatos, et naufragos fuisse scio. Si quis autem pollicitationes saltem particulares requirat, is noverit homines per eam, quæ nunc in usu est, scientiam, ne satis doctos ad optandum quidem esse. Quod autem minoris momenti res est, si quis ex politicis judicium suum in istiusmodi re inserere præsumat, quibus moris est ex personæ calculis singula æstimare, vel ex similis conatus exemplis conjecturam facere, illi dictum volo et illud vetus, claudum in via, cursorem extra viam autevertere, et de exemplis non cogitandum, rem enim sine exemplo esse. Publicandi autem ista ratio ea est, ut quæ ad ingeniorum correspondentias captandas, et mentium areas purgandas pertinent, edantur in vulgus et per ora volitent; reliqua per manus tradantur cum electione et judicio. Nec me latet, usitatum et tritum esse impostorum artificium, ut quædam a vulgo secernant, nihilo iis inceptiis, quas vulgo propinant, meliora. Sed ego sine omni impostura ex providentia sana prospicio ipsam interpretationis formulam, et inventa per eandem, intra legitima et optata ingenia clausa, vegetiora et munitiora futura. Ipse vero alieno periculo ista molior. Mihi enim nil eorum, quæ ab externis pendent, cordi est. Neque enim famæ aucops sum, nec hæresiarcharum more sectam condere gratum habeo, et privatum aliquod emolumentum ex tanta molitione captare ridiculum et turpe duco. Mihi sufficit meriti conscientia, et ipsa illa rerum effectio, cui ne fortuna ipsa intercedere possit.

DE PRINCIPIIS ATQUE ORIGINIBUS,

SECUNDUM FABULAS CUPIDINIS ET CŒLI:

SIVE

PARMENIDIS ET TELESII,

ET PRÆCIPUE

DEMOCRITI PHILOSOPHIA,

TRACTATA IN FABULA.

DE CUPIDINE.

Quæ de Cupidine sive Amore ab antiquis memorata sunt, in eandem personam convenire non possunt; quin etiam ab ipsis ponuntur Cupidines duo, et longo sane intervallo discrepantes; cum unus ex iis Deorum antiquissimus, alter natu minimus fuisse diceretur. Atque de antiquo illo nobis in præsentia sermo est. Narrant itaque Amorem illum omnium Deorum fuisse antiquissimum atque adeo omnium rerum, excepto Chao, quod ei coævum perhibetur. Atque Amor iste prorsus sine parente introducitur. Ipse autem cum Cœlo mixtus, et deos et res universas progenuit. A nonnullis tamen ovo prognatus incubante Nocte traditus est. • Ejus vero attributa ponuntur diversa, ut sit infans perpetuus, cæcus, nudus, alatus, sagittarius. Vis autem ejus præcipua, et propria, ad corpora uuienda valet: etiam elaves ætheris, maris, et terræ ei deferebantur. Fingitur quoque et celebratur alter Cupido minor, Veneris filius, in quem attributa antiquioris transferuntur, et propria multa adjiciuntur.

Fabula ista, cum sequenti de cœlo, brevi parabolæ complexu proponere videtur doctrinam de principiis rerum et mundi originibus, non multum dissideutem ab ea philosophia, quam Democritus exhibuit; nisi quod videatur aliquanto magis severa, et sobria, et perpurgata. Ejus enim viri, licet acutissimi et diligentissimi, contemplationes gliscebant tamen, et modum tenere nesciæ erant, nec se satis stringebant aut sustinebant. Atque etiam hæc ipsa placita, quæ in parabola delitescunt, quamvis paulo emendatiora, talia sunt, qualia esse possunt illa, quæ ab intellectu sibi permisso, nec ab experientia continenter et gra-

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datim sublevato, profecta videntur; nam illud vitium existimamus etiam prisca seecla occupasse. In primis autem intelligendum est, quæ hic afferuntur, conclusa et prolata esse ex auctoritate rationis humanæ solummodo, et sensus fidem secuta: cujus jampridem cessantia et deficientia oracula merito rejiciuntur, postquam meliora et certiora mortalibus ex parte verbi divini affulserint. Itaque Chaos illud, quod Cupidini coævum erat, massam sive congregationem materiæ inconditam significabat. Materia autem ipsa, atque vis et natura ejus, denique principia rerum in Cupidine ipso adumbrata erant. Ille introducitur sine parente, id est, sine causa: causa enim effectus veluti parens est; idque in tropis familiare et fere perpetuum est, ut parens et proles causam et effectum denotent: materiæ autem primæ, et virtutis atque actionis propriæ ejus causa nulla esse potest in natura (Deum enim semper excipimus) nihil enim hac ipsa prius. Itaque efficiens nulla, nec aliquid naturæ notius; ergo nec genus, nec forma. Quamobrem quæcunque tandem sit illa materia, atque ejus vis et operatio, res positiva est et surda, atque prorsus ut invenitur accipienda, nec ex prænotione aliqua judicanda. Etenim modus si sciri detur, tamen per causam sciri non potest, cum sit post Deum causa causarum ipsa incausabilis. Est enim terminus quidam verus et certus causarum in natura; atque æque imperiti est et leviter philosophantis, eum ad ultimam naturæ vim et legem positivam ventum sit, causam ejus requirere aut fingere; ac in iis, quæ subordinata sunt, causam non desiderare. Quare Cupido ab antiquis sapientibus ponitur in parabola sine parente, id est, sine causa. Neque nihil in hoc est; imo haud scimus an non res omnium maxima. Nil enim philosophiam pereque corrupit, ac illa inquisitio parentum Cupidinis; hoc est, quod philosophi principia rerum, quemadmodum in natura invenuntur, non receperunt et amplexi sunt, ut doctrinam quandam positivam, et tanquam fide experimentali; sed potius ex legibus sermonum, et ex dialecticis et mathematicis conclusiunculis, atque ex communibus notionibus, et hujusmodi mentis extra naturam expatiationibus, ea deduxerunt. Itaque philosophanti quasi perpetuo hoc animo agitandum est, non esse parentes Cupidini, ne forte intellectus ad inania defleetat; quia in hujusmodi perceptionibus universalibus gliscit animus humanus, et rebus et se ipso abutitur, et dum ad ulteriora tendit, ad proximiora recidit. Cum enim, propter angustias suas, iis, quæ familiariter occurrunt, et quæ una et subito mentem subire et ferire possunt, maxime moveri consuerit; fit ut cum ad ea, quæ secundum experientiam maxime universalia sunt, se extenderit, et nihilominus acquiescere nolit; tum demum tanquam adhuc notiora appetens, ad ea, quæ ipsum plurimum affecerint, aut illaqueaverint, se vertit, et ea ut magis causativa et demonstrativa, quam ipsa illa universalia, sibi fingit.

Itaque quod prima rerum essentia, vis et Cupido sine causa sit, jam dictum est. De modo vero ejus rei (quæ causam non recipit) videndum. Modus autem et ipse quoque perobscurus est; idque a parabola ipsa monemur, ubi eleganter fingitur Cupido, ovum Nocte incubante exclusum. Certe sanctus philosophus ita pronuntiat: "Cuncta fecit Deus pulchra tempestatibus suis, et mundum tradidit disputationibus eorum; ita tamen ut non inveniat homo opus quod operatus est Deus a principio usque ad finem." Lex enim summa essentiæ atque naturæ, quæ vicissitudines rerum secat et percurrit, (id quod ex verborum complexu describi videtur; "opus quod operatus est Deus a principio usque ad finem,") vis scilicet primis particulis a Deo indita, ex cujus multiplicatione omnis rerum varietas emergat et conflet ur, cogitationem mortalium perstringere potest, subire vix potest. Aptissime autem refertur illud de ovo Noctis ad demonstrationes per quas *Cupido* iste in lucem editur. Quæ enim per affirmativas concluduntur, videntur partus lucis; quæ vero per negativas et exclusiones, ea tanquam a tenebris et nocte exprimuntur et educuntur. Est autem iste Cupido vere ovum exclusum a Nocte; notitia enim ejus (quæ omnino haberi potest) procedit per exclusiones et negativas. Probatio autem per exclusionem facta, quædam ignoratio est, et tanquam nox, quoad id quod includitur. Quare præclare Democritus atomos sive semina, atque eorum virtutem, nullius rei similia, quæ sub sensum cadere posset, asseruit; sed ea prorsus cæca et clandestina natura insignit. Itaque de ipsis pronuntiavit:

> "—Neque sunt igni simulata, neque ulli
> Præterea rei, quæ corpora mittere possit
> Sensibus, et nostros adjecta tangere tactus."
> Lucr. i. 688.

Et rursus de virtute eorum:

> "At primordia gignundis in rebus oportet
> Naturam clandestinam cæcamque adhibere
> Emineat ne quid, quod contra pugnet et obstet."
> Ib. 778.

Itaque atomi neque ignis scintillis, neque aquæ guttis, neque auræ ballis, neque pulveris granis, neque spiritus aut ætheris minutiis, similes sunt. Neque vis et forma eorum aut grave quiddam est aut leve, aut calidum aut frigidum, aut densum aut rarum, aut durum aut molle, qualia in corporibus grandioribus inveniuntur; eum istæ virtutes, et reliquæ id genus compositæ sint et conflatæ. Neque similiter motus naturalis atomi, aut motus ille est descensus, qui appellatur naturalis, aut motus illi oppositus (plagæ) aut motus expansionis et contractionis, aut motus impulsionis et nexus, aut motus rotationis cœlestium, aut quispiam ex aliis motibus grandiorum, simpliciter. Atque nihilominus et in eorpore, atomi elementa omnium eorporum, et in motu et virtute atomi initia omnium motuum et virtutum insunt. Veruntamen in hoc ipso, nimirum de motu atomi, collato ad motum grandiorum, philosophia parabolæ a philosophia Democriti dissentire videtur. Democritus enim non omnino parabolæ tantum, sed et sibi quoque impar, et fere contrarius reperitur in iis, quæ amplius ab eo circa hoc dicta sunt. Debuit enim motum heterogeneum atomo tribuere non minus, quam corpus heterogeneum et virtutem heterogeneam. Verum ille motus duos, descensus gravium, et adscensus levium, (quem per plagam sive percussionem magis gravium pellendo minus gravia in superius expediebat,) delegit ex motibus grandiorum, quos atomo ut primitivos communicaret. Parabola

autem heterogeneam et exclusionem ubique tuetur, tam substantia quam motu. At parabola ulterius innuit, harum, de quibus diximus, exclusionum finem aliquem et modum esse; neque enim perpetuo nox incubat. Atque Dei certe proprium est, cum de ejus natura inquiritur per sensum, ut exclusiones in affirmativis non terminentur. Alia vero est hujus rei ratio, ea scilicet ut post debitas exclusiones et negationes, aliquid affirmetur, et constituatur, et ut ovum quasi a tempestiva et matura incubatione excludatur; neque tantum ovum excludatur Nocte, sed etiam ex ovo excludatur persona Cupidinis; hoc est, ut non tantum educatur et extrahatur hujusce rei notio quædam ex ignoratione, verum etiam notio distincta et confusa. Atque de demonstrationibus, quales eæ circa materiam primam esse possint, hæc habuimus, quæ cum sensu parabolæ maxime convenire arbitramur. Veniendum igitur ad Cupidinem ipsum, materiam scilicet primam, et dotes ejus, quas tanta circumstat nox; et videndum quid parabola ad illam lucis afferat. Neque nos fugit, opiniones hujusmodi duras et fere incredibiles ad hominum sensus et cogitationes accedere. Atque ejus certe rei periculum jam factum esse plane cernimus in hac ipsa Democriti philosophia de atomis, quæ quia paulo acutius et altius in naturam penetrabat, et a communibus notionibus erat remotior, a vulgo puerilitер accipiebatur; sed et philosophiarum aliarum, quæ ad vulgi captum magis accedebant, disputationibus, tanquam ventis, agitata, et fere exstincta est. Et tamen etiam ille vir suis temporibus summa admiratione floruit, et Pentathlus dictus est ob multiplicem scientiam, et inter omnes philosophos, omnium consensu, maxime physicus est habitus, ut magi quoque nomen obtineret. Neque Aristotelis pugnæ et dimicationes (qui Ottomannorum more de regno suo philosophiæ anxius erat, nisi fratres trucidasset; cui etiam curæ erat, ut ex ejus verbis liquet, ne quid posteri scilicet dubitarent) tantum sua violentia, nec etiam Platonis majestas et solennia tantum reverentia potuerunt, ut philosophiam hanc Democriti delerent. Sed dum illa Aristotelis et Platonis strepitu et pompa professoria in scholis circumsonarent et celebrarentur, hæc ipsa Democriti apud sapientiores, et contemplationum silentia et ardua arctius complexos, in magno honore erat. Certe in seculis illis Romanæ doctrinæ, illa Democriti et mansit et placuit; cum Cicero ejus viri ubique summa cum laude mentionem faciat, et non ita multo post præconium illud poëtæ, qui videtur ex temporis sui judicio (ut solent illi) de eo locutus esse, conscriptum sit et exstet.

> " — Cujus prudentia monstrat
> Magnos posse viros, et magna exempla daturos,
> Vervecum in patria crassoque sub aëre nasci."
> Juv. Sat. x. 48.

Itaque non Aristoteles aut Plato, sed Gensericus et Attila et barbari hanc philosophiam pessundederunt. Tum enim, postquam doctrina humana naufragium perpessa esset, tabulæ istæ Aristotelicæ et Platonicæ philosophiæ, tanquam materiæ cujusdam levioris et magis inflatæ, servatæ sunt, et ad nos pervenerunt, dum magis solida mergerentur, et in oblivionem fere venirent. Nobis vero digna videtur Democriti philosophia, quæ a neglectu vindicetur, præsertim quando cum auctoritate prisci seculi in plurimis consentiat. Primo itaque describitur Cupido ut persona quædam; eique attribuuntur infantia, alæ, sagittæ, alia, de quibus sigillatim postea dicemus. Sed hoc interim sumimus; antiquos proposuisse materiam primam (qualis rerum principium esse potest) formatam et dotatam, non abstractam, potentialem, informem. Atque certe materia illa spoliata, et passiva, prorsus humanæ mentis commentum quoddam videtur, atque inde ortum, quia intellectui humano illa maxime esse videntur, quæ ipse potissimum haurit, et quibus ipse plurimum afficitur. Itaque fit ut formæ (quas vocant) magis existere videantur, quam aut materia, aut actio: quod illa latet, hæc fluit; altera non tam fortiter impingitur, altera non tam constanter inhæret. Imagines autem illæ, contra, et manifestæ et constantes putantur; adeo ut materia illa prima et communis tanquam accessorium quiddam videatur, et loco suffulcimenti; actio autem quævis tanquam emanatio tantum a forma; atque prorsus primæ partes formis deferantur. Atque hinc fluxisse videtur formarum et idearum regnum in essentiis, materia scilicet addita quadam phantastica. Aucta etiam sunt ista superstitione nonnulla (errorem, intemperantiam, ut fit, secuta) et ideæ abstractæ quoque introductæ, et earum dignitates; tanta confidentia et majestate, ut cohors somniantium vigilantes fere oppresserit. Verum ista ut plurimum evanuerunt, licet alicui, nostro hoc seculo, curæ fuerit, ea sponte inclinantia, fulcire et excitare majore ausu (ut nobis videtur) quam fructu. Verum quam præter rationem materia abstracta principium ponatur, (nisi obstent præjudicia,) facile perspicitur. Formas siquidem separatas quidem actu subsistere posuerunt, materiam separatam nemo; ne ex iis, qui eam ut principium adhibuerunt; atque ex rebus phantasticis entia constituere durum videtur ac perversum, neque inquisitioni de principiis consonum. Neque enim quæritur quomodo naturam entium commodissime cogitatione complectamur, aut distinguamus, sed quæ sint vere entia prima et maxime simplicia, ex quibus cætera deriventur. Primum autem ens non minus vere debet existere, quam quæ ex eo fluunt, quodammodo magis. Authupostaton enim est, et per hoc reliqua. At quæ dicuntur de materia illa abstracta, non multo meliora sunt, quam si quis mundum et res ex categoriis et hujusmodi dialecticis notionibus, tanquam ex principiis, fieri asserat. Parum enim interest, utrum quis mundum fieri ex materia et forma, et privatione dicat, an ex substantia et qualitatibus contrariis. Sed omnes fere antiqui, Empedocles, Anaxagoras, Anaximenes, Heraclitus, Democritus, de materia prima in cæteris dissidentes, in hoc convenerunt, quod materiam activam, forma nonnulla, et formam suam dispensantem, atque intra se principium motus habentem, posuerunt. Neque aliter cuiquam opinari licebit, qui non experientiæ plane desertor esse velit. Itaque hi omnes mentem rebus submiserunt. At Plato mundum cogitationibus, Aristoteles vero etiam cogitationes verbis, adjudicarunt; vergentibus etiam tum hominum studiis ad disputationes et sermones, et veritatis inquisitionem severiorem miasam facienti-

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bus. Quare hujusmodi placita magis toto genere reprehendenda quam propric confutanda videntur. Sunt enim eorum, qui multum loqui volunt, et parum scire. Atque abstracta ista materia est materia disputationum, non universi. Verum rite et ordine philosophanti, naturæ plane facienda est dissectio non abstractio, (qui autem secare eam nolunt, abstrahere eoguntur,) atque omnino materia prima ponenda est conjuncta cum forma prima, ac etiam cum principio motus primo, ut invenitur. Nam et motus quoque abstractio infinitas phantasias peperit, de animis, vitis, et similibus, ac si iis per materiam et formam non satisficret, sed ex suis propriis penderent illa principiis. Sed hæc tria nullo modo discerpenda, sed tantummodo distinguenda; atque asserenda materia (qualiscunque ea sit) ita ornata, et apparata, et formata, ut omnis virtus, essentia, actio, atque motus naturalis ejus conseeutio et emanatio esse possit. Neque propterea metuendum, ne res torpeant, aut varietas ista, quam cernimus, expliceri non possit, ut postea docebimus. Atque quod materia prima forma nonnulla sit, demonstratur a parabola in hoc, quod Cupidinis est persona quædam. Ita tamen ut materia ex toto sive massa materiæ quondam informis fuerit: chaos enim informe; Cupido persona quædam. Atque hæc cum sacris literis optime conveniunt. Neque enim scriptum est, quod Deus hylen in principio creavit, sed cœlum et terram.

Subjungitur etiam deseriptio nonnulla status rerum, qualis fuerit ante opera dierum, in qua distineta mentio fit terræ et aquæ, quæ sunt nomina formarum; sed tamen quod massa seeundum totum erat informis. Verum introducitur in parabolam Cupido ita personatus ut sit tamen nudus. Itaque post illos, qui materiam ponunt abstractam, proxime (sed in contrarium) peecant illi, qui eam ponunt non exutam. Atque de hac re quædam adspersimus in iis, quæ de demonstrationibus, quales in materiam primam conveniant, et de heterogenea ipsius materiæ a nobis jam dicta sunt. At hic, quem nunc ingrediemur, est proprius ejus rei tractandæ locus. Videndum ergo ex iis, qui principia rerum in materia formata fundaverunt, quinam sint illi, qui formam materiæ tribuerint nativam et nudam, et qui rursus superfusam et indutam. Inveniuntur autem omnino quatuor opinantium seetæ. Prima est eorum, qui unum quippiam asserunt rerum principium, diversitatem autem entium constituunt in natura ejusdem principii fluxa et dispensabili. Secunda eorum, qui principium rerum ponunt substantia unicum, idque fixum et invariabile, diversitatem entium deducunt per hujusmodi principii diversas magnitudines, figuras, et posituras. Tertia eorum, qui plura constituunt rerum principia; et diversitatem entium ponunt in eorum temperamento et mistione. Quarta eorum, qui infinita aut saltem numerosa constituunt rerum principia, sed specificata et effigiata; quibus nihil opus ut comminiscantur aliquid, quod res deducat ad multiplex, cum naturam jam a principio disgregent. Inter quos secunda seeta nobis videtur solummodo Cupidinem exhibere, ut est, nativum et exutum. Prima vero introducit eum tanquam velo discretum. Tertia tunieatum. Quarta etiam chlamidatum et fere sub larva. Atque de singulis pauca dicemus ad meliorem parabolæ explicationem. Primo igitur ex iis, qui unum rerum principium statuerunt, neminem invenimus, qui illud de terra affirmaret. Obstabat scilicet terræ natura quieta, et torpens, et minime activa, sed cœli et ignis et reliquorum patiens; ne id cuipiam in mentem veniret asserere. Attamen prisea sapientia Terram proximam a Chao ponit, Cœlique primo parentem, deinde nuptam; ex quo conjugio omnia. Neque propterea hoc accipiendum, ac si veteres unquam statuissent terram principium essentiæ; sed principium vel originem potius schematismi sive systematis. Itaque hanc rem ad parabolam sequentem de cœlo rejicimus; ubi de originibus inquiremus; quæ est inquisitio ad illam de principiis posterior.

At Thales aquam principium rerum posuit. Videbat enim materiam præeipue dispensari in humido, humidum in aqua. Consentaneum autem esse illud rerum principium ponere, in quo virtutes entium et vigores, præsertim elementa generationum et instaurationum, potissimum invenirentur. Genituram animalium humidam; etiam plantarum semina et nuclea, quamdiu vegetarent, nec effœta essent, tenera et mollia. Metalla quoque liquescere et fluere, et esse tanquam terræ sueeos coneretos, vel potius aquas quasdam minerales. Terram ipsam imbribus aut irrigatione fluviorum fœcundari et instaurari, nihilque aliud videri terram et limum, quam fœces et sedimenta aquæ. At aërem planissime esse aquæ exspirationem atque expansionem. Quin et ignem ipsum non concipi, neque omnino durare aut ali, nisi ex humido et per humidum. Pinguedinem autem illam humidi, in qua flamma et ignis sustentantur et vivunt, videri quandam aquæ maturitatem et conecctionem. Corpus rursus et molem aquæ per universum, ut fomitem communem, dispertiri. Oceanum terræ circumfundi: vim maximam aquarum duleium subterraneam, unde fontes et fluvii, qui venarum instar aquas per terræ et faeiem et viscera deportent. At immensas vaporum et aquarum congregationes in supernis esse, utque aliam quandam aquarum universitatem, utpote a qua inferiores aquæ, atque adeo oceanus ipse, reparentur et refieiantur: etiam ignes eœlestes existimabat aquas illas et vapores depasecere; neque enim aut sine alimento subsistere, aut aliunde ali posse: figuram autem aquæ, quæ in ejus partieulis (guttis videlicet) cernitur, eandem cum figura universi esse, rotundam nempe et sphærieam; quin et undulationem aquæ etiam in aëre et flamma notari et conspici; motum denique aquæ habilem, nec torpescentem, nec præfestinam: numerosissimam autem piscium et aquatilium generationem. Sed Anaximenes aërem delegit, quod unum esset rerum principium. Nam si moles in constituendis rerum principiis spectanda sit, videtur aër longe maxima universi spatia occupare. Nisi enim detur vacuum separatum, aut recipiatur superstitio illa de heterogenea cœlestium et sublunarium; quiequid a globo terræ ad ultima cœli extenditur spatii, atque astrum aut meteorum non est, aërea substantia compleri videtur. Atque globi terrestris domieilium instar puncti ad cœli ambitum eensetur. In æthere vero ipso, quantula portio in stellis conspergitur? Cum

in citimis sphæris singulæ conspiciantur, in ultima licet ingens earum numerus sit, tamen præ spatiis interstellaribus, exiguam quiddam spatii siderum appareat; ut omnia tanquam in vastissimo aëris pelago natare videantur. Neque parva est ea portio aëris et spiritus, quæ in aquis et cavis terræ locis sedem et moram habet; unde aquæ fluorem suum recipiunt. Quin et extenduntur quandoque et intumescunt; terræ autem non solum porositas sua accidit, sed etiam tremores et concussiones, evidentia signa venti et aëris inclusi. Quod si media quædam natura sit propria principiorum, ut tantæ varietatis possit esse susceptiva; ea prorsus in aëre reperiri videtur. Est enim aër tunquam commune rerum vinculum, non tantum quia ubique præsto est, et succedit, et vacun possidet, sed multo magis quod videtur esse naturæ cujusdam mediæ et adiaphoræ. Hoc enim corpus illud est, quod lucem, opacitatem, omniumque colorum tincturas, et umbrarum eclipses excipit et vehit; quod sonorum etiam harmonicorum, et (quod multo majus est) articulatorum impressiones et signaturas motu accuratissimo discriminat; quod odorum differentias, non tantum generales illus suavis et fœtidi, gravis, acuti, et similium, sed proprias et specificatas, rosæ, violæ, subit nec confundit; quod ad celebres et potentissimas illas qualitates calidi, frigidi, etiam humidi, sicci, quodammodo æquum se præbet, in quo vapores aquei, halitus pingues, spiritus salium, metallorum fumi, suspensa volant. Denique in quo radii cœlestes, et arctiores rerum consensus et discordiæ, secreto commeant, et obmurmurant, ut sit aër veluti Chaos secundum, in quo tot rerum semina agant, errent, tentent, atque experiantur. Postremo, si vim genialem et vivificantem in rebus consulas, quæ ad rerum principia manuducat eaque manifestet, etiam aëris potiores partes esse videntur; adeo ut aëris et spiritus et animæ vocubula usu nonnunquam confundantur. Idque merito cum vitæ paulo adultioris (exceptis scilicet rudimentis illis vitæ in embryonibus et ovis) respiratio aliqua comes sit veluti individuus; adeo ut pisces, concreta et conglaciata aquarum superficie, suffocentur. Etiam ignis ipse, nisi ab aura circumfusa animetur, extinguitur, nihilque aliud videtur, quam aër attritus, irritatus et incensus; quemadmodum aqua e contra videri possit aëris coagulum et receptus. Etiam terram perpetuo aërem exhalare, neque ut per aquam in formam aëris transitum faciat opus habere. Heraclitus vero magis acutus, sed minus credibilis, ignem rerum principium posuit. Neque enim naturam mediam, quæ maxime vaga et corruptibilis esse solet, sed naturam summam et perfectam, quæ corruptionis et alterationis terminus quidam sit, ad rerum principia constituenda quæsivit. Videbat autem maximam rerum varietatem et perturbationem in corporibus solidis et consistentibus inveniri. Talia enim corpora organica esse possunt, et veluti machinæ quædam; quæ etiam ex figura innumeras variationes nanciscuntur, qualia sunt corpora animalium et plantarum. Etiam in his ipsis ea quoque, quæ organica non sunt, tamen si acutius introspiciantur, valde esse dissimilia reperiuntur. Quanta enim dissimilitudo inter partes animalium illas ipsas, quæ vocuntur similares? Cerebrum, humorem crystallinum, albuginem oculi, os, membranam, cartilaginem, nervum, venam, carnem, pinguedinem, medullam, sanguinem, sperma spiritum, chylum, reliqua? Etiam inter partes vegetabilium, radicem, corticem, caulem, folium, florem, semen, et similia? At fossilia organica non sunt certe, sed tamen et in una specie varie commista sunt, et ad invicem admodum copiosam varietatem ostendunt. Quamobrem basis illa diversitatis entium, ampla, lata, et exporrecta, in qua tantus rerum apparatus elucescit et obversatur, constitui videtur in naturu solida et consistenti. Corpora vero liquorum, vis schematismi organici plane deserit. Neque enim reperitur per totam istam naturam visibilem, aut animal, aut planta, in corpore mere fluido. Ergo numerosissima illa varietas a natura liquida abscinditur et subducitur. Manet nihilominus varietas non parva, ut in tanta diversitate fusilium, succurum, distillatorum, et hujusmodi, manifestum est. At in aëriis et pnenmaticis corporibus arctatur multo magis varietas, et obducitur promiscua quædam rerum similitudo. Certe vis illa colorum et saporum, quibus liquores quandoque distinguuntur, omnino cessat; odorum vero manet, atque aliarum nonnullarum, ita tamen ut transeant, confundantur, et minus hæreant; adeo ut in universum quo magis ad ignis naturam fiat appropinquatio, tantum de varietate depereat. At postquam ad ignis naturam ventum est, ejusque rectificati et purioris, omne organum, omnisque proprietas, omnis dissimilaritas exuitur, atque natura tanquum in vertice pyramidali in unum coire videtur, atque ad terminum actionis suæ propriæ pervenisse. Itaque incensionem sive ignescentiam Pacem nominavit, quia naturam componeret; generationem antem Bellum, quia ad multiplex deduceret. Atque ut ista ratio (qua res a varietate ad unum, et ab unitute ad varium, fluminis instar, fluerent et refluerent) aliquo modo explicari posset: ignem ei densari et rarescere placuit, ita tamen ut rarescentia illa versus naturam igneam actio esset naturæ directa et progressiva; densatio antem veluti retrogradatio naturæ et destitutio. Utrumque fato et certis periodis (secundum summam) fieri censebut: ut mundi istius, qui volvitur, futura sit quandoque conflagratio, et deinde instauratio, atque incensionis et generationis series perpetua et successio. Ordinem autem (si quis diligenter versetur in tenni ea, quæ de hoc viro atque ejua decretis ad nos pervenit, memoriu) diversum statuit incensionis et extinctionis. In scala enim incensionis nihil ab iis, quæ vulgata sunt, dissentiebat; ut progressus rarescentiæ et extenuationis esset a terra ad aquam, ab aqua ad aërem, ab aëre ad ignem; at non idem decursus; sed ordinem plane invertebat. Ignem enim per extinctionem terram educere asserebat, tanquam fæces quasdam atque fuliginos ignis: eas deinceps uditatem concipere et colligere, unde aquæ fiat effluvium, quæ rursus aërem emittat et exspiret; ut ab igne ad terram mutatio fiat in præceps, non gradatim.

Atque hæc, aut iis meliora, cogitabant illi, qui unum rerum principium statuerunt, naturam simpliciter intuiti, non contentiose. Atque laudandi sunt, quod vestem unicam Cupidini tribuerint, in quod

nuditati proximum est; atque hujusmodi vestem, quæ est (ut diximus) veli cujuspiam instar, non profectu telæ spissioris. Vestem autem Cupidinis appellamus formam aliquam materiæ primæ attributam, quæ asseratur esse cum forma alicujus ex entibus secundis substantialiter homogenea. Ista autem quæ de aqua, aëre, igne, ab istis asseruntur, non firmis admodum rationibus nixa, reprehendere non fuerit difficile; neque causa videtur cur de singulis disseramus, sed tantum in genere. Primo itaque videntur antiqui illi in inquisitione principiorum, rationem non admodum acutam instituisse, sed hoc solummodo egisse, ut ex corporibus apparentibus et manifestis, quod maxime excelleret, quærerent; et, quod tale videbatur, principiom rerum ponerent; tanquam per excellentiam, non vere aut realiter. Putabant enim hujusmodi naturam dignam, quæ sola esse diceretur qualis apparet: cætera vero eandem ipsam naturam esse existimabant, licet minime secundum apparentiam; ut vel per tropum locuti, vel tanquam fascinati videantur, cum impressio fortior reliqua traxerit. At vere contemplantem, æquum se præbere oportet ad omnia, atque principia rerum statuere, quæ etiam cum minimis et rarissimis, et maxime desertis quibuscunque entium conveniant, non tantum cum maximis et plurimis et vigentibus. Licet enim nos homines entia, quæ maxime occurrunt, maxime miremur, tamen naturæ sinus ad omnia laxatur. Quod si principium illud suum teneant non per excellentiam, sed simpliciter; videntur utique in durinrem tropum incidere; cum res plane dedncatur ad æquivocum, neque de igne naturali, aut naturali aëre, aut aqua, quod asserunt, prædicari videatur, sed de igne aliquo phantastico et notinnali, (et sic de cæteris,) qui nomen ignis retineat, definitionem abneget. Porro videntur et illi in eadem incommoda compelli, quæ assertores materiæ abstractæ subeunt. Ut enim illi materiam potentialem et phantasticam ex toto, ita et isti ex parte introducunt. Ponunt etiam materiam quoad aliquid (principium illud nempe suum) formatam et actualem; quoad reliqua tantum potentialem. Neque aliquid lucri fieri per istnd genus principii unici videtur magis, quam per illad materiæ abstractæ; nisi quod habetur aliquid quod obversetur ad intellectum humanum, in quo cugitatio humana magis defigatur et acquiescat, et per qood notio principii ipsius paulo plenior sit, reliquorum omnium abstrusior et durior. Sed scilicet illa ætate prædicamenta regnum non acceperant, ut potuisset principium illud materiæ abstractæ latere sub fide et tutela prædicamenti sabstantiæ. Itaque nemo ausus est confingere materiam aliquam plane phantasticam, sed principium statuerunt secundum sensum; aliqnod ens verum; modum autem ejus dispensandi (liberius se gerentes) phantasticum. Nihil enim inveniunt, imo nec comminiscuntur, quo appetitu aut stimulo, aut qua ratione, via, aut ductu, istud principium suum a se degeneret, et rursus se recipiat. At eum tanti appareant per universum contrariorum exercitus, densi, rari, calidi, frigidi, lueidi, opaci, animati, inanimati, et aliurum plurimorum, quæ se invicem oppugnant, privant, perimunt: hæc omnia ab uno quopiam rei materiatæ fonte manare putare, neque tamen ullum ejus rei modum ostendere, speculationis cujusdam attonitæ videtur, et inquisitionem deserentis. Nam si de re ipsa per sensum constaret, ferendum esset, licet modus esset in obscuro; rursus si modus vi rationis eruius esset aliquis habilis et credibilis, discedendum fortasse ab apparentiis; sed minime postulandum ut iis assentiamus, quorum nec entia per sensum manifesta, neque explicatiunes per rationem probabiles. Præterea, si unum esset rerum principium, debuerat ejus conspici in omnibus rebus nota quædam, et tanquam partes potiores, et prædominantia nonnulla; neque inveniri principatum ullum, quod principio ex diametro opponatur. Etiam in medio collocari debuerat, ut omnibus eommodius sui copiam faceret, et per ambitum se diffunderet. At horum nihil esse in illis placitis invenitur. Nam terra, quæ a principii honore separatur, et excluditur, videtur suscipere et fovere naturas illis tribus principalibus uppositas, cum ad mobilitatem et lucidam naturam ignis opponat naturam quietam et opacam; ad tenuitatem et mollitiem aëris, opponat similiter naturam densam et duram; et ad humiditatem et sequacitatem aquæ, naturam siccam, rigidam et asperam; atque ipsa quoque terra medium locum occuparit, cæteris deturbatis. Porro, si unicum esset rerum principium, debuerat et illud tum ad rerum generationem, tum ad earum dissolutionem, æquam præbere nataram. Tam enim est principil, ut res in illad solvantur, quam ut res ex illo gignantor. At hoc non fit; sed ex iis corporibus aër et ignis ad materiam generationis præbendam inepta videntur, ad eorum resolutionem excipiendam parata. At aqua contra ad generationem benigna et alma, ad resolutionem sive restitationem magis aliena et aversa; id quod facile cerneretur, si imbres paulisper cessarent. Quin et putrefactio ipsa nullo modo res ad aquam puram et crudam redigit. Sed longe maximus error, quod constituerunt principium corruptibile et mortale. Id enim faciunt, cum principium introducunt tale, qnod naturam suam in compositis deserat et deponat.

> "Nam quodcunque suis mutatum finibus exit,
> Continuo hoc mors est illius, quod fuit ante."

Verum hac ratione magis nobis opus erit statim, cum ad illam tertiam sectam, quæ plura decrevit rerum principia, sermo jam ordine devectus sit; quæ certe secta plus roboris habere videri possit, plus præjudicii certe habet. Itaque od opiniones non secundum genus et in communi, sed singulas accedemus.

Itaque ex iis, qui plura principia dixerunt, separabimus eos, qui infinita asserunt. Ille enim locus de infinito ad parabolam Cœli pertinet. Verum ex antiquis Parmenides duo rerum principia, ignem et terram, dixit, sive cœlum et terram. Solem enim et sidera, verum ignem esse asseruit, eumque purum et limpidum, nun degenerem, qualis apud nos est ignis, qui, tanquam Vulcanus in terram dejectus, ex casu claudicat. Parmenidis vero placita instaaravit seculo nostro Telesius, vir Peripateticis rationibus (si aliquid illæ essent) potens et instructus, quas etiam in illos ipsos vertit; sed affirmando impeditus, et

destruendo quam astruendo melior. Ipsius vero Parmenidis inventorum parca admodum et perexilis memoria. Attamen fundamenta similis opinionis plane jacta videntur in libro, quem Plutarchus de primo frigido conscripsit; qui tractatus videtur ex aliquo tractatu antiquo, qui tunc temporis exstabat, jam periit, descriptus et desumptus. Habet enim non pauca et acutiora et firmiora, quam solent esse auctoris ipsius, qui ea vulgavit; a quibus monitus atque excitatus videtur Telesius, ut ea et studiose arriperet, et strenue persequeretur in suis de natura rerum commentariis. Placita autem hujus sectæ sunt hujusmodi. Primas formas ac prima entia activa, atque adeo primas substantias, calorem et frigus esse; eadem nihilominus incorporea existere; sed subesse materiam passivam et potentialem, quæ corpoream molem præbeat, atque sit utriusque naturæ ex æquo susceptiva, ipsa omnis actionis expers. Lucem pullulationem caloris esse, sed caloris dissipati, qui coëundo multiplicatus, sit robustus et sensibilis. Opacitatem similiter destitutionem et confusionem naturæ radiantis ex frigore. Rarum et densum caloris et frigoris texturas et veluti telas esse; calorem vero et frigus eorum effectores et opifices, densante opus frigore et inspissante, divellente autem calore et extendente. Ex ejusmodi texturis indi corporibus dispositionem erga motum, vel habilem vel aversam: raris videlicet promptam et habilem, densis torpescentem et aversam. Itaque calorem per tenue motum excitare et peragere, frigus per densum motum compescere et sedare. Quare esse et poni quatuor naturas coëssentiales atque conjugatas, easque duplices, ordinem eum, quem diximus, ad invicem servantes, (fons enim calor et frigus, cæteræ emanationes,) sed tamen perpetuo concomitantes et inseparabiles. Eas esse, calidum, lucidum, rarum, mobile: et quatuor rursus his oppositas, frigidum, opacum, densum, immobile. Sedes vero et contignationes primæ conjugationis, in cœlo, sideribus, ac præcipue in sole statui; secundæ in terra. Cœlum enim e summo integroque calore et materia maxime explicata, esse calidissimum, lucidissimum, tenuissimum, maxime mobile. Terram contra, ex frigore integro et irrefracto, et materia maxime contracta, frigidissimam, tenebricosissimam, densissimam, penitus immobilem, ac summopere motum exhorrentem. Summitates vero cœli naturam suam integram atque illæsam servare, diversitatem nonnullam inter se admittentes, sed a contrarii violentia et insultu penitus semotas: similem per ima sive intima terræ constantiam esse, extrema tantum, ubi contrariorum sit appropinquatio et concursus, laborare, et ab invicem pati et oppugnari. Cœlum itaque tota mole et substantia calidum et omnis contrariæ naturæ prorsus expers, sed inæqualiter; aliis partibus scilicet magis calidum, aliis minus. Stellatum enim corpus intensius calidum, interstellare remissius; quin et stellis ipsis alias aliis ardentiores, et ignis magis vividi et vibrantis: ita tamen ut contraria natura frigoris, aut aliquis ejus gradus, nunquam eo penetret; recipere enim diversitatem naturæ, contrarietatem non recipere. Neque vero de calore aut igne cœlestium, qui est integer et nativus, ex igne communi judicium omnino fieri. Ignem enim nostrum extra locum suum, trepidum, contrariis circumfusum, indignum, et stipem alimenti, ut conservetur, emendicantem, et fugientem. At in cœlo vero locatum, ab impetu alicujus contrarii disjunctum, constantem, ex se et similibus conservatum, et proprias operationes libere et absque molestia peragentem. Item cœlum omni parte lucidum, sed secundum magis et minus. Cum enim sint ex stellis notis et numeratis, quæ nisi cœlo sereno conspici non possint, atque in galaxia sint nodi minutarum stellarum, quæ albedinem quandam conjunctæ, non corpus lucidum distinctæ repræsentent; nemini dubium esse posse, quin et sint stellæ complures, quoad nos invisibiles; atque adeo universum cœli corpus luce præditum sit, licet fulgore non tam robusto et vibrante, nec radiis tam confertis et constipatis, ut tanta spatia distantiarum vincere queat, et ad nostrum aspectum pervenire. Ita rursus cœlum universum ex substantia tenui et rara, nil in ea contrusum, nil illibenter compactum, sed tamen alia parte materiam magis explicatam, alia minus explicatam sortiri. Postremo, motum cœli eum inveniri, qui rei maxime mobili competat, conversionis nimirum sive rotationis; motus enim circularis absque termino est, et sui gratia. Motus in linea recta ad terminum, et ad aliquid; et tanquam ut quiescat. Itaque universum cœlum motu circulari ferri, nec ullam ejus partem hujus motus expertem esse; sed tamen quemadmodum et in calore, et in luce, et raritate cœli versatur inæqualitas, ita et in motu eandem notari; adeoque magis insigniter, quia observationem humanam magis lacessit et sustinet, ut etiam calculos pati possit. Motum autem orbicularem et incitatione differre posse, et latione; et incitatione, ut sit celerior aut tardior; latione, ut sit in circulo perfecto, aut aliquid habeat spiræ, neque se plane restituat ad eundem terminum (nam linea spiralis ex circulo et recta composita est). Itaque hæc ipsa cœlo accidere, varietatem nempe incitationis, et deflexionem a restitutione, sive spiralitatem. Nam et stellæ inerrantes et planetæ impariter properant; et planetæ evidenter a tropico in tropicum deflectunt, atque quo sublimiora cœlestia sunt, eo et majorem incitationem sortiuntur, et propiorem spiram. Nam si phænomena simpliciter, atque ut conspiciuntur, accipiantur, et ponatur motus diurnus unus naturalis et simplex in cœlestibus, et formositas illa mathematica (ut motus reducantur ad circulos perfectos) contemnatur, et recipiantur lineæ spirales; et contrarietates illæ motuum in consecutione, ab oriente in occidentem, (quem vocant primi mobilis,) et rursus ab occidente in orientem (quem vocant motum propriom planetarum) redigantur in unum, salvando differentiam temporis in restitutione per præfestinationem et derelictionem, et diversam politatem zodiaci per spiras; manifestum est hoc, quod diximus, evenire. Exempli gratia, ut luna, quæ est planetarum infima, incedat et tardissime, et per spiras maxime raras et hiantes. Atque talis quædam natura portionis illius cœli, quæ fit (propter distantiam a contrario) firma et perpetua, huic sectæ videri possit. Utrum vero veteres terminos servarit Telesius, ut talia esse putaret, quæcunque supra lunam collocantur, cum luna ipsa; an

altius vim inimicam ascendere posse, perspicue non ponit. At terræ (quæ est oppositæ naturæ contignatio et sedes) portionem itidem maximam, intemeratam et inconcussam statuit, et quo cælestia non penetrent. Eam vero qualis sit, non esse cur inquiratur, ait. Sat esse ut quatuor illis naturis, frigiditate, opacitate, densitate, et quiete, iisque absolutis, et nullatenus imminutis dotata judicetur. Partem autem terræ versus superficiem ejus, veluti quendam cortieem, aut incrustationem, generationi rerum assignat; omniaque entia, quæ nobis quovis modo innotuerunt, etiam ponderosissima, durissima, et altissime demersa, metalla, lapides, mare, ex terra per calorem cœli aliqua ex parte versa et subacta, et quæ nonnihil caloris, radiationis, tenuitatis, et mobilitatis jam concepcrit, et denique ex media inter solem et terram puram natura participet, consistere. Itaque necesse est ut terra illa pura infra profundissima maris, minerarum, et omnis generati deprimatur; et a terra illa pura usque ad lunam, aut altiora fortasse, media quædam natura ex temperamentis et refractionibus cœli et terræ collocetur. Postquam autem interiora utriusque regni satis muniisset, expeditionem et bellum molitur. Nam in spatiis illis intra extima cœli et intima terræ omnem tumultum, et conflictum, et tartarismum inveniri, ut fit in imperiis, in quibus illud usu venit, ut fines incursionibus et violentiis infestentur, dum interiores provinciæ secura pace fruuntur. Has itaque naturas, et earum coneretiones, sese assidue generandi et multiplicandi, et quaquaversus offundendi, et molem materiæ universam occupandi, et sese mutuo oppugnandi et invadendi, et propriis se sedibus deturbandi et ejiciendi, et sese in iis constituendi, præterea et alterius naturæ vim, et aetiones, et proprias etiam percipiendi et prehendendi, et ex hujusmodi perceptione se movendi et accommodandi, appetitum et facultatem habere, atque ex ista decertatione, omnium entium, atque omnis actionis et virtutis varietatem deduci. Videtur tamen alicubi, licet titubanter et strietim, aliquid dotis materiæ impertiri; primo ut non augeatur nec minuatur, per formas et activa entia, sed summa universali constet: deinde ut motus gravitatis sive descensus ad illam referatur: etiam quiddam de nigredine materiæ injicit. Illud autem perspicue; calorem et frigus eadem vi et copia, in materia explicata vires remittere, in complicata intendere, cum mensuram non suam sed materiæ impleant. Modum vero excogitat atque explicat Telesius, quo ex hoc certamine et lucta induci atque expediri possit tam fœcunda et multiplex entium generatio. Ac primo cavet terræ, inferiori scilicet principio, ac ostendit quid in causa sit, cur a sole terra jampridem destructa, et absorpta non sit, nec in futurum esse possit. Caput huic rei distantiam ponit terræ a stellis fixis immensam, a sole ipso satis magnam, et, qualis esse debeat, bene mensuratam. Secundo, declinationem radiorum solis a perpendiculo, habito respectu ad partes terræ diversas; quod videlicet supra majorem partem terræ sol nunquam sit in vertice aut incidentia radiorum perpendicularis; adeo ut universum terræ globum vigore aliquo caloris notabili nunquam occupet. Tertio, obliquitatem motus solis, in transcursu per zodiacum, habito respectu ad easdem terræ partes, unde calor solis in qualieunque vigore non assiduo ingeminatur, sed per intervalla majora redit. Quarto, ecleritatem solis respectu motus diurni, qui tantum ambitum tam exiguo temporis spatio confieit, unde minor mora caloris, neque momentum aliquod temporis, in quo calor eonstet. Quinto, continuationem corporum inter solem et terram, quod sol non per vacuum integras caloris dimittat vires, sed per tot corpora renitentia permeans, et cum singulis satagens, et dimicans, in immensum langueat et enervetur; tanto magis, quod quo longius procedat atque debilior evadat, eo corpora inveniat magis inobsequentia, maxime omnium, postquam ad terræ superficiem ventum est, ubi videtur non solum renitentia, sed plane quædam repulsio. Processum vero immutationis talem asserit. Bellum plane inexpiabile atque internecivum esse; neque contrarias istas naturas ullo symbolo convenire, neque per tertiam, præterquam hylen. Itaque utramque naturam hoc ipsum appetere, niti, contendere, ut alteram plane perdat, seque solam et suam materiæ indat; ut sit solis opus (quod perspicue et sæpe dicit) plane terram vertere in solem, et vicissim opus terræ, solem vertere in terram; neque hoc officere quin omnia certo ordine, definitis temporibus, et justis mensuris fiant; atque actio quæque cursu debito incipiat, moliatur, vigeat, langueat, cesset. Quod tamen per leges fœderis aut coneordiæ ullas non fieri, sed omnino per impotentiam: omne enim plus et minus in virtute et actione non ab intentionis moderamine, (quæ integrum quiddam eoncupiscit,) sed ab oppositæ naturæ ictu et fræno esse; operationis diversitatem et multiplicitatem, atque etiam perplexitatem, omnino propter unum ex tribus istis evenire; vim caloris, dispositionem materiæ, modum subactionis; quæ tamen tria nexu quodam inter se implicantur, atque sibi ipsis concausæ sunt. Calorem ipsum, vi, copia, mora, medio, successione differre: successionem vero ipsam in plurimis variari, accedentia, recedentia, sive intentione, remissione, saltu, gradu, reditu, sive repetitione per majora aut minora intervalla; atque hujusmodi alterationibus. Calores itaque prorsus vi et natura longe diversissimos esse, prout puriores vel impuriores, habita ratione ad primum fontem (solem videlicet) facti sint. Neque calorem omnem calorem fovere: sed postquam gradibus bene multis ad inviecm distent, se mutuo non minus, quam frigora, perimere ac perdere, et proprias aetiones agere, et alterius aetionibus adversari atque opponi; ut minores calores ad multo majores constituat Telesius tanquam proditores et perfugas, et enm frigore conspirantes. Itaque vividum illum calorem, qui in igne est, et vibratur, exilem illum calorem, qui in aqua serpit, omnino interimere; atque similiter calorem præternaturalem humorum putridorum in corpore humano, calorem naturalem suffocare et extinguere. Copiam vero caloris plurimum interesse, manifestius esse, quam ut explicatione egeat. Neque enim unam aut alteram ignis prunam æque vehementer, ac multas coacervatas, calefacere; maxime autem insigniter copiæ caloris effectum demonstrari in multiplicatione caloris solis per reflexionem radiorum; numerus enim radiorum condupliеatur per reflexionem simpliеem, multiplieatur per variam. Copiæ caloris vero debet adscribi vel addi et unio,

quod etiam obliquitate et perpendiculo radiorum optime ostenditur, cum quo propius et ad acutiores angulos radius directus et reflexus coëat, eo validiorem caloris ictum jaciat. Quin et sol ipse, cum inter majores illos et robustiores stellarum fixarum ignes, regulum, caniculam, spicam, versatur, valentiores fervores efflat. Moram vero caloris evidentissime maximi momenti operationem esse, cum omnes virtutes naturales tempora colant, observent, ut ad vires actuandas tempus requiratur nonnullum, ad roborandas bene multum. Itaque moram caloris, calorem æqualem in progressivum et inæqualem convertere, quia calor et antecedens et subsequens simul conjugantur; id et in fervoribus autumnalibus, quia fervoribus solstitialibus, et in horis æstivis pomeridianis, quia horis ipsis meridianis ardentiores sentiuntur, manifestum esse; etiam in frigidioribus regionibus debilitatem caloris, mora et longitudine dierum æstivis temporibus quandoque compensari. At medii potentiam et efficaciam in calore deferendo insignem esse. Hinc enim tempestatum temperiem magnopere variam, ut cœlum indicibili inconstantia per dies æstivos algidum nonnihil, per dies hiemales sudum quandoque inveniatur; sole interim iter suum et spatia sua constanter et legitime servante; etiam segetes et uvas flantibus austris, et cœlo nubiloso, magis mutari. Atque omnem cœli secundum varias annorum revolutiones dispositionem et excretionem aliquando pestilentem et morbidam, aliquando salubrem et amicam, hinc causam et originem sumere; medio scilicet aëre variante, quæ dispositionem ex ipsa vicissitudine et alteratione tempestatum diversam, longa fortasse serie, colligit. Successionis vero caloris atque ordinis, quo calor calorem consequitur, ut multiplicem rationem, ita summam virtutem esse. Neque solem tam numerosam et prolificam generationem educere potuisse, nisi corporis solis moventis configuratio versus terram et terræ partes plurimæ inæqualitatis et variationis particeps esset. Nam et circulariter movetur sol, et rapide et ex obliquo, et se retexit, ut et absens sit et præsens, et propior et remotior, et magis ex perpendiculo, et magis ex obliquo, et citius rediens et tardius; neque ullo temporis momento calor emanans a sole sibi constet, neque brevi intervallo usquam (nisi sub ipsis tropicis) se restituat; ut tanta variatio generantis eum tanta varietate generati optime conveniat. Cui addi posse medii sive vehiculi naturam diversissimam. Cætera quoque quæ de inæqualitate et gradibus caloris unici dicta sunt, posse ad vicissitudines et varietates successionis in caloribus diversis referri. Itaque Aristotelem non male generationem et corruptionem rerum obliquæ viæ solis attribuisse, eamque ut efficientem causam earum constituisse, si libidine pronuneiandi, et arbitrum naturæ se gerendi, et res ad placitum suum distinguendi et concionandi, recte inventum non corrupisset. Illum enim et generationem et corruptionem (quæ nunquam prorsus privativa, sed generationis alterius prægnans est) inæqualitati caloris solis secundum totum, hoc est, accedentiæ et recedentiæ solis conjunctim, non generationem accedentiæ, corruptionem recedentiæ divisim assignare debuisse; quod pinguitur et ex vulgi fere judicio fecit. Quod si cui mirum videatur, generationem rerum soli attribui, eum sol ignis esse asseratur et supponatur, ignis autem nil generet; id leviter objici. Somnium enim plane esse illud de heterogenea calorum solis et ignis. Infinitas enim esse operationes, in quibus actio solis et actio ignis conveniant; ut in maturatione fructuum, conservatione plantarum tenerarum, et elementiæ cœli assuetarum, in regionibus frigidis, exclusione ovorum, restitutione urinarum ad claritatem, (calorem enim solis et animalis conjungimus,) resuscitatione animalculorum frigore obrigentium, evocatione eorum et vaporum, et id genus. Sed nihilominus ignem nostrum malum mimum esse; nec solis actiones bene imitari, aut prope attingere, cum solis calor tribus dotatus sit proprietatibus, quæ ignis communis ægre ullo artificio repræsentare possit. Primo, quod sit ob distantiam, gradu ipso minor et blandior; hoc vero ejusmodi esse, ut aliquo modo æquiparari possit; caloris enim talis modus magis incognitus est, quam imparabilis. Secundo, quod per tot et talia media fluens et gliscens, dissimilarem quandam et generativam vim mutuetur et obtineat; maxime vero quod tam regulari inæqualitate augeatur, minuatur, accedat, recedat, nunquam vero subsultorie aut præcipitanter sibi succedat. Quæ duo postrema ab igne fere sunt inimitabilia, licet industria perspicaci et perpensa res provehi possit. Atque hujusmodi quædam de diversitate calorum a Telesio dicuntur.

Frigidi autem, contrarii nempe principii, atque dispensationis ejus vix meminit: nisi forte quæ de dispositione materiæ jam secundo loco dicentur, ea huic rei satisfacere posse putaverit; quod tamen facere non debuit, quandoquidem frigus nullo modo privationem caloris, sed omnino principium activum, caloris æmulum, et tanquam competitorem, videri voluit. Quæ autem de materiæ dispositione disseruit, eo pertinent ut ostendant quomodo materia a calore patiatur, et subigatur, et vertatur, missa frigoris mentione aut cura. De frigore autem (nos enim in omnium inventis summa eum fide, et tanquam faventes, versamur) hujusmodi quædam dicere potuit. Sedem frigidi immotam et fixam ad structuram caloris mobilem et versatilem optime convenire: tanquam incudem ad malleum. Nam si utrumque principium varietatem et alterationem habuisset, genuissent proculdubio entia horaria et momentanea. Etiam immensas regiones ealidi (cœlum scilicet) compacta natura globi, terræ, et circumjacentium, nonnihil compensari; eum non spatia, sed copia materiæ in spatiis, speetetur; frigidi vero naturam, virtutes, et rationes merito aut silentio præteriri, aut brevi sermone transmitti debere, eum nil certi et explorati de eo haberi possit per experientiam. Habemus enim ignem communem, tanquam solis vicarium; qui caloris naturam manifestet. At frigidi telluris nulla est substitutio, quæ in manu hominis sit, et adhibeatur præsto ad experimentum. Etenim illos horrores et rigores frigidi, qui ex globo et ambitu terræ hiemalibus temporibus, et in regionibus frigidissimis exspirant in aërem, tepores plane et balnea esse, præ natura primi frigidi, in visceribus terræ inclusi; ut frigus illud, cujus homines sensum et potestatem habeant, simile quiddam sit, ac si calorem nullum alium haberent præter eum, qui a sole æstivis diebus, et in calidis regionibus emanat; qui ad ignes fornacis ardentis collatus, refrigerium quoddam

censeri possit. Sed in iis, quæ subdititia sunt, minus morandum. Videndum igitur deinceps, qualia sint ea, quæ a Telesio dicuntur circa dispositionem materiæ, in quam calor agat; cujus ea est vis, ut actionem ipsam caloris promoveat, impediat, immutet. Ejus ratio quadruplex. Prima differentia sumitur ex calore præinexistente, aut non præinexistente. Secunda, ex copia aut paucitate materiæ. Tertia, ex gradibus subactionis. Quarta, ex clausura, vel apertura corporis subacti. Quod ad primam attinet, supponit Telesius in omnibus entibus, quæ nobis cognita sunt, subesse atque latitare calorem nonnullum, licet ad tactum minime deprehendatur, qui calor cum novo aut superveniente calore conjungitur; quin et ipse ab eodem adventitio calore ad actiones, quas peragendas etiam in proprio modulo excitatur atque incenditur. Hujus rei argumentum esse insigne, quod nullum scilicet sit ex entibus, non metallum, non lapis, non aqua, non aër, quod non ex attactu, atque etiam ab admotione ignis, aut corporis calidi, calescat. Quod factum iri verisimile non est, nisi calor præinexistens et latens, præparatio quædam esset ad calorem novum et manifestum. Etiam illud magis et minus, nempe facilitatem aut tarditatem in calore concipiendo, quod in entibus invenitur, secundum modum caloris præinexistentis competere. Aërem enim parvo calore tepescere, atque eo, qui in corpore aquæ non percipiatur, sed sensum fugiat: etiam aquam citius tepescere, quem lapidem, aut metallum, aut vitrum. Nam quod aliquod ex istis, metallum scilicet aut lapis, citius tepescere videatur quam aqua, id tantum in superficie fieri, non in profundo; quia corpora consistentia minus communicabilia sunt in partibus suis, quam liquida. Itaque extima metalli citius calefieri quam extima aquæ, universam autem molem, tardius. Secunda differentia ponitur in coacervatione et exporrectione materiæ. Ea si densa fuerit, fit ut caloris vires magis uniantur, et per unionem magis angeantur et intendantur; contra, si laxior fuerit, ut magis disgregentur, et per disgregationem magis minuantur et enerventur. Itaque fortiorem esse calorem metallorum ignitorum, quam aquæ ferventis, etiam quam flammæ ipsius, nisi quod flamma per tenuitatem magis subintret. Nam flammam carbonum sive lignorum, nisi flatu excitetur, ut per motum facilius impellatur et penetret, non admodum furere: quin et nonnullas flammas (qualis est spiritus vini, inflammati præsertim in exigua quantitate et dispersa) adeo lenis caloris esse, ut ad manum fere toleretur. Tertia differentia, quæ sumitur ex subactione materiæ, multiplex est; gradus enim subactionis memorantur ab eo quasi septem; quorum primus est, lentor, qui est dispositio materiæ exhibens corpus ad majorem violentiam nonnihil obsequens, et compressionis, et præcipue extensionis patiens, flexibile denique aut ductile. Secundus, mollities, cum majore violentia nil opus est, sed corpus etiam levi impulsione atque ad tactum ipsum sive manum cedit absque evidenti renitentia. Tertia, viscositas sive tenacitas, quæ est principium quoddam fluoris. Videtur enim corpus viscosum ad contactum et complexum alterius corporis incipere fluere et continuari, nec se ipso finiri, licet sponte et ex sese non fluat: fluidum enim sui sequax est, viscosum alterius magis. Quarta, ipse fluor, cum corpus spiritus interioris particeps in motu versatur libens et scipsum sequitur, atque ægre definitur, aut consistit. Quinta, vapor, cum corpus attenuatur in intactile, quod etiam majore cum agilitate et mobilitate cedit, fluit, undulat, trepidat. Sexta, halitus, qui vapor est quidam magis coctus et maturus, et ad igneam naturam recipiendam subactus. Septima, aër ipse; aërem autem contendit Telesius omnino calore nativo, neque eo parvo aut impotenti, prædituin esse; quod etiam in frigidissimis regionibus aër nunquam congelatur aut concrescit. Etiam illud evidenti indicio esse, aërem in natura propria calidum esse, quod omnis aër clausus, et ab universitate aëris divulsus, et sibi permissus, teporem manifeste colligit, ut in lana et rebus fibrosis. Etiam in locis clausis et angustis aërem ad respirationem sentiri quodam modo suffocativum, quod a calido est. Atque hæc propterea fieri quod aër clausus, sua natura uti incipiat, cum aër foras et sub dio refrigeretur a frigore, quod globus terræ perpetuo immittit et efflat. Quin etiam aërem nostrum communem tenui quadam cœlestium dote insigniri, cum habeat nonnihil in se lucis; quod ex visu animalium, quæ noctu et in locis obscuris cernere possunt, ostenditur. Atque talis est Telesio dispositionis materiæ series, in mediis videlicet; siquidem extrema, videlicet ex altera parte corpora dura et rigida, ex altera, ignis ipse, tanquam termini mediorum non recensentur. Sed præter hosce gradus simplices magnam aucupatur diversitatem in dispositione materiæ ex corpore similari et dissimilari, cum scilicet portiones materiæ in uno corpore compositæ et coadunatæ, vel ad unum ex gradibus supradictis æqualiter referri possunt, vel ad diversa impariter. Longe enim maximam inde sequi in operatione caloris differentiam. Itaque quartam illam differentiam necessario adhiberi ex natura ac etiam positura corporis, in quod calor agat, clausa, aut porosa et aperta. Quando enim in aperta et exposita operatur calor, operatur seriatim et per singula, attenuando et simul educendo et separando. Cum vero in occlusa et compacta operatur secundum totum, et secundum massam, nulla facta jactura caloris, sed calore novo et vetere se conjungentibus et plane conspirantibus; unde fit ut potentiores et magis intrinsecas et exquisitas alterationes et subactiones conficiat. Verum de hoc plura mox dicentur, cum de modo subactionis disseremus. Sed interim satagit et æstuat Telesius, et miris modis implicatur, ut expediat modum divortii et separationis qualitatum suarum primarum connaturalium, caloris, lucis, tenuitatis, et mobilitatis, ac quaternionis oppositæ prout corporibus accidunt; cum corpora alia inveniantur calida, aut ad calorem optime præparata, sed eadem inveniantur quoque densa, quieta, nigra; alia tenuia, mobilia, lucida, sive alba, sed tamen frigida; et similiter de cæteris, una quapiam qualitate in rebus existente, reliquis non competentibus; alia vero duabus ex istis naturis participent, duabus contra priventur, varia admodum permutatione et consortio. Qua in parte Telesius non admodum feliciter perfungitur, sed more adversariorum suorum se gerit; qui cum prius opinantur quam experiuntur, ubi ad res particulares ventum est, ingenio et rebus abutuntur, atque tam ingenium,

quam res, misere lacerant et torquent; et tamen alacres et (si ipsis credas) victores, suo sensu utcunque abundant. Concludit autem rem per desperationem, et votum illud significans, licet et caloris vis et copia, et materiæ dispositio, erasso modo, et secundum summas distingui et terminari possint; tamen exactas et accuratas eorum rationes, et distinctos et tanquam mensuratos modos extra inquisitionis humanæ aditus sepositos esse; ita, tamen, ut (quomodo inter impossibilia) diversitas dispositionis materiæ melius, quam caloris vires et gradus, perspici possit; atque nihilominus in his ipsis (si qua fata sinant) humanæ et scientiæ et potentiæ fastigium et culmen esse. Postquam autem desperationem plane professus esset, tamen in vota precesque non cessat. Ita enim dixit: Qui porro calor vel quantus, hoc est, quod caloris robur, et quæ ejus copia, quam terram et quæ entia in qualia invertat, minime inquirendum videtur, ut quod homini nulla (ut nobis videtur) innotescere queat ratione. Qui enim vel caloris vires, et calorem ipsum veluti in gradus partiri, vel materiæ, cui inditus est, copiam quantitatemque distincte percipere, et certis determinatisque caloris viribus copiæque, certam materiæ quantitatem, dispositionemque, certasque actiones, aut contra, certæ materiæ quantitati, certisque actionibus, certam determinatamque caloris copiam assignare liceat? Utinam id otio fruentes et perspicaciore prædíti ingenio, et quibus in summa tranquillitate rerum naturam perscrutari licuerit, assequantur: ut homines non omnium modo scientes, sed omnium fere potentes fiant! Honestius paulo quam solent ejus adversarii, qui quicquid artes, quas ipsi peperérunt, non assequuntur, id ex arte omnino impossibile statuunt, ut nulla ars damnari possit, cum ipsa et agat et judicet. Restat tertium quod erat, subactionis videlicet modus. Hoc triplici dogmate absolvit Telesius. Primum est, id quod antea a nobis obiter est notatum, nullam prorsus symbolizationem intelligi (ut in Peripateticorum doctrina) per quam res tanquam concordia quadam foveantur et conspirent. Omnem enim generationem, atque adeo omnem effectum in corpore naturali, victoria, et prædominantia, non pacto aut fœdere transigi. Id quod novum non est, cum etiam Aristoteles in doctrina Empedoclis hoc ipsum notaverit. Quod scilicet cum Empedocles litem et amicitiam, rerum principia efficientia statuisset, tamen in explicationibus suis causarum, inimicitia fere utatur, alterius tanquam oblitus. Secundum est, calorem actione sua propria perpetuo vertere ens in humidum, et quod calori siccitas nullo modo coëat, nec frigori humiditas. Idem enim esse attenuare et humectare, atque quod maxime tenue, id etiam maxime humidum esse; cum per humidum intelligatur id quod facillime cedit, abit in partes, et rursus se restituit, atque ægre finitur aut consiatit. Quæ omnia magis insunt flammæ, quam aëri; qui a Peripateticis constituitur maxime humidus. Itaque calorem, humidum perpetuo allicere, depascere, extendere, indere, generare; contra, frigus omnia agere in siccitatem, concretionem, duritiem; ubi vult Aristotelem et hebetem in observatione, et sibi discordem, et erga experientiam imperiosum, et libidinosum videri, quod calorem cum siccitate copulet. Nam quod aliquando entia desiccet calor, id per accidens fieri; nimirum in corpore dissimilari, et ex partibus aliis magis crassis, aliis magis tenuibus coagmentato, eliciendo, et (per attenuationem) exitum dando parti tenuiori, dum pars crassior inde cogatur, et magis se constringat: quæ tamen ipsa pars crassior, si advenerit calor ferocior, et ipsa fluit, ut in lateribus manifestum est. Primo enim calor non ita ferveus lutum cogit in lateres, tenuiore parte evaporata. At fortior calor etiam illam substantiam lateritiam solvit in vitrum. Atque hæc duo dogmata veluti errorum redargutiones censeri possunt; tertium plane affirmat, neque id solum, sed et perspicue distinguit subactionis modum. Is duplex est, vel rejiciendo, vel vertendo; atque alteruter ex iis modiis perducitur in actum secundum vim caloris et dispositionem materiæ. Cujus rei tamen duo videntur tanquam canones. Unus, quod cum calidum et frigidum magna mole, et tanquam justo exercitu concurrunt, sequitur ejectio. Nam entia, veluti acies, loco moventur et impelluntur. Ubi vero minore quantitate res geritur, tum sequitur versio; nam interimuntur entia, et naturam potius quam locum mutant. Hujus rei insigne et nobile exemplum esse in regionibus aëris superioribus, quæ licet ad calorem cœlestem magis appropinquent, tamen frigidiores inveniuntur, quam confinia terræ. In illis enim locis, postquam propius ad sedem primi calidi ventum est, calor se colligens universam frigoris vim, quæ ascenderat, simul ejicit et detrudit, et aditu prohibet. Quin etiam similiter fieri posse, ut sint per profunda terræ calores vehementiores, quam in superficie; postquam scilicet ad sedem primi frigidi appropinquatio facta est, quod se excitans, magno impetu calidum rejicit, et fugit, et in se vertit. Alter canon est, quod in aperto sequitur ejectio; in clausa versio. Hoc autem insigniter conspici in vasibus occlusis, ubi emissio corporis attenuati (quod spiritum fere vocamus) prohibita et retrusa profundas et intrinsecas in corporibus alteratiunes et fermentationes generat. At hoc ipsum similiter fieri, cum corpus ob partium compactionem sibi ipsi instar vasis occlusi est. Atque hæc sunt quæ Telesio, et fortasse Parmenidi, circa rerum principia, visa sunt; nisi quod Telesius hylen addidit de proprio; peripateticis scilicet notionibus depravatus.

Atque similia veri fuissent, quæ a Telesio dicuntur, si homo tollatur e natura et simul artes mechanicæ, quæ materiam vexant, atque fabrica mundi simpliciter spectetur. Nam pastoralis quædam videtur ista philosophia, quæ mundum contemplatur placide, et tanquam per otium. Siquidem de systemate mundi disserit non male, de principiis imperitissime. Quin et in ipso quoque systemate ingens est lapsus, quod tale constituat systema, quod videri possit æternum, nec supponat chaos, et mutationes schematismi magni. Sive enim ea est Telesii philosophia, sive peripateticorum, sive quæ alia, quæ in eum modum systema instruat, libret, muniat, ut non videatur fluxisse a chao; ea levior philosophia videtur, atque omnino ex angustiis pectoris humani. Nam omnino secundum sensum philosophanti materiæ æternitas asseritur; mundi (qualem eum intuemur) negatur: quod et priscæ sapientiæ, et ei, qui ad ipsam proxime accedit, Democrito visum est.

Idem sacræ literæ testantur. Illud præcipue interest; quod illæ etiam materiam a Deo; hi ex sese statuunt. Tria enim videntur esse dogmata, quæ scimus ex fide, circa hanc rem. Primo, quod materia creata sit ex nihilo. Secundo, quod eductio systematis fuerit per verbum omnipotentiæ, neque quod materia se ipsa eduxerit e chao in schematismum illum. Tertio, quod schematismus ille (ante prævaricationem) fuerit optimus ex iis, quæ materia (qualis creata erat) suscipere posset. At philosophiæ illæ ad nullum horum ascendere potuerunt. Nam et creationem ex nihilo exhorrent, et hunc schematismum post multas ambages et molimina materiæ eductum sentiunt; nec de optimitate laborant, cum schematismus asseratur occiduus et variabilis. In his itaque fidei atque ejus firmamentis standum. Utrum vero materia illa creata, per longos seculorum circuitus, ex vi primo indita, se in illum optimum schematismum colligere et vertere potuisset, (quod missis ambagibus ex verbi imperio continuo fecit,) non inquirendum fortasse est. Tam enim est miraculum, et ejusdem omnipotentiæ repræsentatio temporis, quam effomatio entis. Videtur autem natura divina utraque omnipotentiæ emanatione se insignire voluisse: primo, operando omnipotenter super ens et materiam, creando scilicet ens e nihilo: secundo, super motum et tempus, anticipando ordinem naturæ et accelerando processum entis. Verum hæc ad parabolam de cœlo pertinent, ubi, quæ nunc breviter perstringimus, fusius disseremus. Itaque ad principia Telesii pergendum. Atque utinam hoc saltem semel et inter omnes conveniret, ne aut ex non entibus entia, aut ex non principiis principia, constitui placeret, neque manifesta recipiatur contradictio. Principium autem abstractum non est ens; rursus ens mortale non est principium; ut necessitas plane invincibilis hominum cogitationes (si sibi constare velint) compellat ad atomum, quod est verum ens, materiatum, formatum, dimensum, locatum, habens antitypiam, appetitum, motum, emanationem. Idem per omnium corporum naturalium interitus manet inconcussum et æternum. Nam cum tot et tam variæ sint corporum majorum corruptiones, omnino necesse est, ut quod tanquam centrum manet immutabile, id aut potentiale quiddam sit, aut minimum; at potentiale non est. Nam potentiale primum reliquorum, quæ sunt potentialia, simile esse non potest, quæ aliud actu sunt, aliud potentia. Sed necesse est ut plane abstractum sit, cum omnem actum abneget, et omnem potentiam contineat. Itaque relinquitur ut illud immutabile, sit minimum; nisi forte quis asserat omnino principia nulla existere; sed rem alteram alteri pro principiis esse, legem atque ordinem mutationis constantia esse et æterna, essentiam ipsam fluxam et mutabilem. Atque satius foret hujusmodi quiddam diserte affirmare, quam studio æternam aliquod principium statuendi, in durius incommodum incidere, ut idem principium ponatur phantasticum. Illa enim prior ratio aliquem exitum habere videtur, ut res mutentur in orbem; hæc prorsus nullum, quæ notionalia et mentis adminicula habet pro entibus. Et tamen quod hoc ipsum nullo modo fieri possit, postea docebimus. Telesio tamen hyle placuit, quam ex juniore ævo postnatam in Parmenidis philosophiam transtulit. At certamen instituit Telesius agentium suorum principiorum, mirum, et plane iniquum, et copiis et genere bellandi. Nam quod ad copias attinet, terra ei est unica, at cœli exercitus ingens; etiam terra puncti fere instar; cœli vero spatia et regiones immensæ. Neque huic incommodo illud subvenire queat, quod terra et connaturalia ejus ex materia maxime compacta asserantur, cœlum contra et ætherea ex materia maxime explicata. Licet enim plurimum certe intersit, tamen hæc res nullo modo copias vel longo intervallo æquabit. At robur dogmatis Telesii versatur in hoc vel præcipue, si tanquam æqualis portio hyles (secundum quantum, non secundum exporrectionem) utrique principio agenti assignetur, ut res durare possint, et systema constitui et stabiliri. Quicunque enim cum Telesio sentiet in cæteris, et exsuperantiam hyles præsertim tam amplo excessu, in uno principio, ad alterum recipiet; hærebit, nec se omnino explicabit. Itaque in dialogo Plutarchi De Facie in Orbe Lunæ, sana mente proponitur illa consideratio, non esse verisimile, in dispersione materiæ, naturam quicquid compacti corporis erat in unicum terræ globum conclusisse, tot interim volventibus globis astrorum. Huic vero cogitationi tam immoderate indulsit Gilbertus, ut non solum terram et lunam, sed complures alios globos solidos et opacos, per expansionem cœli, inter globos lucentes, sparsos assereret. Quin et ipsi peripatetici, postquam cœlestia suo statu; sublunaria autem per successionem et renovationem æterna posuissent, non confisi sunt se hoc dogma tueri posse, nisi elementis veluti æquas materiæ portiones assignassent. Hoc est enim illud, quod de decupla illa portione, qua ambiens elementum interius elementum superet, consomniant. Neque ista eo adducimus, quod nullum ex iis nobis placeat, sed ut ostendamus inopinabile quiddam esse; atque cogitationem prorsus male mensuratam, si quis terram, contrarium agens cœlo principium statuat: quod Telesius fecit. Atque hoc ipsum durius multo invenitur, si quis, præter quantum ipsum, disparem virtutem et actum cœli et terræ intueatur. Perdita enim omnino sit dimicationis conditio, si ex altera parte telorum hostilium ictus perferantur, ex altera non pertingant, sed citra cadant. At liquet plane solis vires in terram mitti; terræ autem vires usque ad solem venire nemo spondeat. Etenim inter omnes virtutes, quas natura parit, illa lucis et umbræ longissime emittitur, ex maximo spatio sive orbe circumfunditur. Umbra autem terræ citra solem terminatur, cum lux solis, si terra diaphana esset, globum terræ transverberare possit. Nominatum calidum, frigidum (de quibus nunc est sermo) nunquam deprehenduntur tam magna spatia vincere, in virtute sua perferenda, quam lux et umbra. Itaque si umbra terræ non pertingit ad solem, multo minus frigidum terræ eo aspirare posse consentaneum est. Id si ita sit, nempe ut sol et calidum in quædam corpora media agat, quo contrarii principii virtus non ascendat, nec ullo modo eorum actum impediat; necesse est ut illa (sol, inquam, et calidum) proxima quæque occupent, et dein remotiora quoque conjungant, ut tandem futura sit Heracliti conflagratio, solari et cœlesti natura gradatim versus terram et confinia ejus descendente et magis appropinquante. Neque illa

admodum conveniunt, ut vis illa naturam suam imponendi et multiplicandi, et alia in se vertendi, quam Telesius principiis attribuit, non operetur in similia æque aut magis quam in contraria; ut cœlum jam excandescere debuerit, et stellæ inter se committi. Verum ut propius accedamus, quatuor omnino demonstrationes proponendæ videntur, quæ Telesii philosophiam de principiis plane convellere et destruere possint, etiam singulæ, multo magis conjunctæ. Harum prima est, quod inveniantur in rebus nonnullæ actiones et effectus, etiam ex potentissimis et latissime diffusis, quæ ad calorem et frigus nullo modo referri possint. Proxima, quod inveniantur naturæ nonnullæ, quarum calor et frigus sint effectus et consecutiones; neque id ipsum per excitationem caloris præinexistentis, aut admotionem caloris advenientis; sed prorsus per quæ calor et frigus in primo esse ipsorum indantur et generentur. Itaque principii ratio in iis ex utraque parte deficit, tum quia aliquid non ex ipsis, tum quia ipsa ex aliquo. Tertia, quod etiam ea quæ a calore et frigore originem ducunt, (quæ certe sunt quamplurima,) tamen procedunt ab illis, tanquam ab efficiente et organo, non tanquam a causa propria et intima. Postremo, quod conjugatio illa quatuor connaturalium omnino permiscetur et confunditur. Quare de his sigillatim dicemus. Atque alicui fortasse vix operæ pretium videri possit, nos in philosophia Telesii arguenda tam diligenter versari, philosophia scilicet non admodum celebri aut recepta. Verum nos hujusmodi fastidia nil moramur. De Telesio autem bene sentimus, atque eum ut amantem veritatis, et scientiis utilem, et nonnullorum placitorum emendatorem et novorum hominum primum agnoscimus. Neque tamen nobis eum eo res est tanquam Telesio, sed tanquam instauratore philosophiæ Parmenidis, cui multa debetur reverentia. Sed illud in primis in causa est, quod hæc fusius agamus, quod in eo, qui primus nobis occurrit, complura disserimus, quæ ad sequentium sectarum (de quibus postmodum tractandum erit) redargutionem transferri possint, ne sæpius eadem dicere sit necesse. Sunt enim errorum (licet diversorum) fibræ miris modis inter se implicatæ et intextæ, quæ tamen sæpenumero una redargutione, tanquam falce, demeti et succidi possint. Verum ut occœpimus dicere, videndum quales inveniantur in rebus virtutes et actiones, quæ ad calidum et frigidum nullo rerum consensu aut ingenii violentia trahi possint. Primo itaque sumendum quod a Telesio datur, materiæ summam æternum constare, nec augeri aut minui. Hanc ille dotem, qua materia se servat, et sustinet, transmittit, ut passivam, et tanquam ad rationem quanti potius, quam ad formam et actionem, pertinentem, ac si nihil opus esset eam calori et frigori deputare, quæ agentium tantum formarum, et virtutum fontes ponuntur; materiam enim non simpliciter, sed omni agente virtute destitui et exui. Atque hæc asseruntur magno mentis errore, et prorsus mirabili, nisi quod consensus atque opinio pervulgata et inveterata miraculum tollit. Nil enim simile fere inter errores reperitur, quam ut quis virtutem istam materiæ inditam, per quam ipsa se ab interitu vindicat, adeo ut minima quæque materiæ portio, nec universa mundi mole obrui, nec omnium agentium vi et impetu destrui, aut ullo modo annihilari, et in ordinem redigi queat; quin et spatii nonnihil occupet, et renitentiam servet cum dimensione impenetrabili, et ipsa vicissim aliquid moliatur, nec se deserat; pro agente virtute non habeat, cum contra sit omnium virtutum longe potentissima, et plane insuperabilis, et veluti merum fatum et necessitas. Hanc autem virtutem nec conatur Telesius ad calidum et frigidum referre. Atque hoc recte; neque enim scilicet aut incendium, aut torpor, et congelatio huic rei aliquid addunt vel detrahunt, nec super eum aliquid possunt, cum ipsa interim et in sole, et ad centrum terræ, et ubique vigeat. Sed in eo lapsus videtur, quod molem materiæ certam et definitam agnoscit; ad virtutem, qua se numeris suis tueatur, cæcutit, eamque (profundissimis peripateticorum tenebris immersus) accessorii loco ducit, cum sit maxime principalis, corpus suum vibrans, alind submovens, solida et adamantina in seipso, atque unde decreta et possibilis et impossibilis emanant auctoritate inviolabili. Schola itidem vulgaris eam facili verborum complexu pueriliter prensat, satisfactum huic cogitationi putans, si duo corpora in eodem loco non posse esse pro canone ponat, virtutem autem istam, atque ejus modum, nunquam apertis oculis contemplatur, et ad vivum dissecat; parum scilicet gnara, quanta ex ea pendeant, et qualis lux inde scientiis exoriatur. Verum (quod nunc agitur) ista virtus quantacunque extra Telesii principia cadit. Transeundum jam ad virtutem illam, quæ ad priorem hanc est tanquam antistropha, eam scilicet quæ nexum materiæ tuetur. Ut enim materia a materia obrui non vult, ita nec materia a materia divelli. Atque nihilominus utrum hæc naturæ lex sit æque ac illa altera peremptoria, magnam habet dubitationem. Telesio enim, quemadmodum et Democrito, vacuum coacervatum et sine meta dari placuit, ut entia singularia contiguum suum deponant, nonnunquam et deserant, ægre (ut aiunt) et illibenter, sed majore nempe aliqua violentia domita et coacta; idque ille nonnullis experimentis demonstrare contendit, ea potissimum adducens, quæ passim citantur ad abnegandum et refellendum vacuum, eaque tanquam extrahens et amplians eo modo, ut entia videri possint in levi aliqua necessitate posita, contiguum illud tenere; sin majorem in modum torqueantur, vacuum admittere; sicuti in clepsydris aqueis, in quibus si foramen, per quod aqua descendere possit, minutius sit, spiraculo egebunt, ut aqua descendat; sin latius, etiam absque spiraculo, aqua in foramen majore mole incumbens, et vacuum supra nil morata, deorsum fertur. Similiter in follibus, in quibus si ea comprimas et occludas, ut nullus illabenti aëri aditus pateat, ac postea eleves et expandas, si pellis gracilis sit et debilis, dirumpitur pellis; si crassa et frangi inepta, non item; et alia hujusmodi. Verum experimenta ista nec exacte probata sunt, nec inquisitioni omnino satisfaciunt, aut quæstionem terminant, atque licet per illa Telesius se addere rebus et inventis putet, et quod ab aliis confusius observatum est, subtilius distinguere nitatur, tamen nullo modo par rebus evadit, nec exitum rei evolvit, sed in mediis prorsus deficit; quod ex more est et ipsi et Peripateticis, qui ad experimenta contuenda instar noctuarum sunt, neque id tam ob facultatis imbecillitatem, sed ob

cataractas opinionum, et contemplationis plenæ et fixæ impatientiam. Quæstio vero ista (ex maxime arduis) quousque detur vacuum, et ad quæ spatia fieri possit seminum vel coitio vel distractio, et quid sit in hoc genere peremptorium et invariabile, ad locum ubi de vacuo tractandum erit, rejicimus. Neque enim multum interest ad id quod nunc agitur, utrum natura vacuum penitus respuat, an entia (ut emendatius se loqui putat Telesius) mutuo contactu gaudeant. Illud enim planum facimus, istam sive vacui fugam, sive contactus cupidinem, nullo modo a calido et frigido pendere, nec a Telesio ipsi adscribi, nec ex rerum ulla evidentia illis adscribi posse; cum materia loco mota aliam prorsus materiam trahat, sive illa sit calida sive frigida, sive liquida sive sicca, sive dura sive mollis, sive amica sive inimica, adeo ut corpus calidum, corpus gelidissimum citius attraxerit ut ei adsit, quam se ab omni corpore disjungi et deseri patiatur. Nam vinculum materiæ fortius est, quam dissidium calidi et frigidi. Et sequacitas materiæ non curat diversitatem formarum specialium: itaque nullo modo hæc virtus nexus ab illis principiis calidi et frigidi. Sequuntur virtutes duæ invicem oppositæ, quæ regnum hoc principiorum (ut videri possit) ad calidum et frigidum detulerunt, sed jure male enucleato; eas, dicimus, per quas entia se aperiunt et rarefaciunt, dilatant et expandunt, ita ut majus spatium occupent, et se in majorem sphæram conjiciant; aut rursus se claudunt et condensant, coarctunt et contrahunt, ita ut spatiis deeedant, et in minorem sphæram se recipiant. Ostendendum itaque est, quatenus ista virtus a calido et frigido ortum habeat, et quatenus seorsum moretur, nec cum illa rationes misceat. Atque verissimum est quod affirmat Telesius, rarum et densum caloris et frigoris esse veluti opificia propria: longe enim maximæ sunt illorum partes ad hoc, ut corpora majus et minus spatium occupent; sed tamen confusius ista accipiuntur. Videntur enim corpora quandoque ab una spatiatione naturali in alteram migrare et se transferre, idque libenter et tanquam volentia et formam mutantia; quandoque autem tantummodo a naturali spatiatione depulsa, et manente forma veteri in consuetam spatiationem reverti. Atque virtus illa progressiva in novum spatium a calido et frigido fere rugitur. At virtus altera restutiva non item, siquidem expandit se aqua in vaporem et aërem, oleum similiter et pinguia in halitum et flammam ex vi caloris: nec (si perfecte transmigraverint) reverti satagunt; quin et aër ipse ex calore intumescit et extenditur. Quod si migratio fuerit semiplena, post caloris abscessum, in se facile recidit; ut etiam in virtute restutiva partes frigoris et caloris sint nonnullæ. At quæ non mediante calore, sed violentia aliqua extensa sunt et distracta, etiam absque ulla frigoris accessione, aut diminutione caloris, in priora spatia (cessante violentia) cupidissime revertuntur; ut in exsuetione ovi vitrii, et follibus levatis. Id vero in solidis et crassis longe evidentius est. Nam si distendatur pannus vel chorda, remota vi, magna velocitate resiliunt; atque eadem est compressionis ratio. Nam aër violentia aliqua contrusus et incarceratus multo conatu erumpit; atque adeo omnis ille motus mechanicus, quo durum a duro percutitur, qui vulgo motus violenti nomine appellatur, per quem res solidæ mittuntur et volant per aërem et aquam, nihil aliud est, quam nixus partium corporis emissi ad se expediendum a compressione; et tamen nusquam hic apparent vestigia calidi et frigidi. Neque est, quod quis arguteur ex doctrina Telesii hoc modo, ut dicat; esse singulis spatiationibus naturalibus assignatam portionem quandam calidi et frigidi, ex certa quadam analogia: itaque fieri posse ut tametsi nihil addatur caloris, tamen si spatia materiata extendantur aut contrahantur, res eodem recidat, quia plus et minus imponitur materiæ in spatio, quam pro ratione caloris et frigoris. Verum ista licet non absurda dictu, tamen sunt eorum, qui semper aliquid comminisci solent, ut quod semel visum est tencant, nec naturam et res persequuntur. Nam si addatur calor et frigus hujusmodi corporibus extensis aut compressis, idque majore mensura, quam pro ratione et natura corporis ipsius, velnti si pannus ille tensus calefiat ad ignem, tamen nullo modo rem compensabit, nec impetum restitutionis extinguet. Itaque planum jam fecimus, istam virtutem spatiationis, ex calore et frigore in parte notabili non pendere, eum tamen sit ipsa illa virtus, quæ plurimum auctoritatis his principiis tribuerit. Sequuntur duæ virtutes, quæ omnibus in ore sunt, atque longe et late patent, per quas scilicet corpora massas sive congregationes majorcs rerum connaturalium petunt, in quarum observatione, ut in reliquis, aut nugantur homines, aut plane aberrant. Schola enim communis satis habet si motum naturalem a violento distinguat; et gravia deorsum, levia sursum ferri ex motu naturali pronuntiet. Verum parum proficiunt ad philosophiam hujusmodi speculationes. Ista enim natura, ars, violentia, compendia verborum sunt, et nugæ. Debenrunt autem hunc motum non tantum ad naturam referre, sed etiam affectum et appetitum particularem et proprium corporis naturalis in hoc ipso motu quærere. Sunt enim et alii motus complures naturales ex passionibus rerum longe diversis. Itaque res secundum differentias proponenda est. Quin et ipsi illi motus, quos violentos appellant, magis secundum naturam appellari possint, quam iste quem vocant naturalem; si sit illud secundum naturam quod est fortius, aut etiam quod est magis ex ratione universi. Nam motus iste ascensus et deseensus, non admodum imperiosus est, nec etiam universalis, sed tanquam provincialis et secundum regiones; quin et aliis motibus obsequens et subjectus. Quod vero gravia deorsum ferri aiunt, levia sursum, idem est ac si dicerent, gravia esse gravia, levia levia. Quod enim prædicatur, id ex vi ipsa termini in subjecto assumitur. Si vero per grave densum, per leve rarum intelligunt, promovent nonnihil, ita tamen ut ad adjunetum et concomitans potius, quam ad causam, rem deducant. Qui vero gravium appetitum ita explicant, ut ad centrum terræ illa ferri contendant, levia ut ad circumferentiam et ambitum cœli, tanquam ad loca propria; asserunt certe aliquid, atque etiam ad causam innunt; sed omnino perperam. Loci enim nullæ sunt vires, neque corpus nisi a corpore patitur, atque omnis incitatio corporis, quæ videtur esse ad se collocandum, appetit atque molitur configurationem versus aliud corpus, non collocationem aut situm simpliceem.

OPERA CIVILIA ET MORALIA.

FRANCISCI BACONI EQUITIS AURATI,

PROCURATORIS SECUNDI JACOBI REGIS MAGNÆ BRITANNIÆ,

DE

SAPIENTIA VETERUM,

LIBER,

AD INCLYTAM ACADEMIAM CANTABRIGIENSEM.

ILLUSTRISSIMO VIRO COMITI SARISBURIENSI,

SUMMO THESAURARIO ANGLIÆ, ET CANCELLARIO ACADEMIÆ CANTABRIGIENSIS.

Quæ academiæ Cantabrigiensi dicantur, tibi jure cancellarii accrescunt; quæ autem a me proficisci possunt omnia, tibi nomine proprio debentur. Illud magis videndum, num ista, ut tibi debita, ita etiam te digna sint: atque quod in illis minimum est, ingenium auctoris, id propter tuum propensum in me animum nihil officiet; cætera dedecori non erunt. Nam si tempus spectetur; antiquitas primæva summam venerationem habet: si docendi forma; parabola veluti area quædam est, in qua pretiosissima quæque scientiarum reponi consueverunt: si operis materia; ea philosophia est, vitæ scilicet atque animæ humanæ decus secundum. Fas sit enim dixisse, quamvis philosophia, seculo nostro veluti per senium repuerascens, adolescentibus et fere pueris relinquatur; eam tamen omnium rerum, post religionem, gravissimam, atque natura humana maxime dignam esse plane censeo. Etiam politica, in qua te mirabilem præbes et facultate, et meritis, et sapientissimi regis judicio, ab eodem fonte emanat, ejusque pars magna est. Quod si cui ista, quæ affero, vulgata esse videantur: certe quid effecerim, judicium meum non est; id tamen secutus sum, ut, manifesta, et obsoleta, et locos communes prætervectus, aliquid etiam ad vitæ ardua et scientiarum arcana conferam. Erunt itaque captui vulgari vulgaria: altiorem autem intellectum fortasse non deserent, sed potius (ut spero) deducent: verum dum huic operi dignitatem nonnullam astruere conor, quod ad te dicatum sit; periculum est, ne modestiæ fines transeam, eum a me sit susceptum. Tu vero illud tanquam pignus affectus erga te mei, et observantiæ, et animi maxime devoti accipies, eique præsidium nominis tui imperties. Quare cum tot et tanta sustineas, tempora tua diutius non morabor; sed finem faciam, tibi felicia omnia comprecatus, et perpetuo futurus.

Tibi, et studio suo, et beneficiis tuis devinctissimus,

FRA. BACONUS.

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ALMÆ MATRI

INCLYTÆ ACADEMIÆ CANTABRIGIENSI.

Cum sine philosophia me certe nec vivere juvet; merito vos in magno honore habeo, a quibus mihi ista vitæ præsidia et solatia fluxerint. Itaque hoc nomine, et me, et mea vobis debere profiteor, quo minus mirum sit, si vos vestris remunerem; ut motu naturali redeant a quo traxerint originem. Et tamen, nescio quomodo, rara videntur vestigia vos retrorsum spectantia: cum infinita a vobis profecta sint. Nec nimium mihi sumam (ut opinor) si sperem, propter rerum usum mediocrem, quod nostrum vitæ genus et institutum necessario traxit, nonnullam ad hominum doctorum inventa, per hæc nostra, factam esse accessionem. Equidem in ea opinione sum, contemplationes, in vitam activam translatas, nonnihil novi decoris et vigoris acquirere; et suppetente uberiore materia, et magis altas fortasse radices agere, aut certe magis proceras et frondosas evadere. Neque vos (ut arbitror) ipsi nostis, quam late pateant vestra, quamque ad multa pertineant. Æquum est tamen omnia vobis attribui, atque in vestrum honorem cedere, cum accessiones quæque principiis magna ex parte debeantur. Neque vero ab homine occupato aliquid exquisitum, aut otii miracula, et prærogativas requiretis; sed et hoc amori meo summo erga vos et vestra tribuetis, quod intra rerum civilium spinas hæc non prorsus pericrint, sed vobis vestra servata sint. Valete.

Alumnus vester amantissimus,

FRA. BACONUS.

PRÆFATIO.

Antiquitatem primævam (exceptis quæ in sacris literis habemus) oblivio et silentium involvit: silentia antiquitatis fabulæ poëtarum exceperunt: fabulis tandem successere scripta quæ habemus; adeo ut antiquitatis penetralia et recessus a sequentium seculorum memoria et evidentia, tanquam velo fabularum, discreta et separata sint; quod se interposuit et objecit medium inter ea, quæ perierunt, et ea, quæ extant. Equidem existimo plerosque in ea opinione fore, me delicias ac ludos facere; atque similem fere licentiam in transferendis fabulis usurpare, ac ipsi poëtæ sibi sumpserint in fingendis; quod pro meo jure sane facere possem, ut contemplationibus magis arduis hæc, ad voluptatem sive meditationis propriæ, sive lectionis alienæ, aspergerem. Neque me latet quam versatilis materia sit fabula, ut huc illuc trahi, imo et duci possit; quantumque ingenii commoditas et discursus valeat, ut quæ nunquam cogitata sint, belle tamen attribuantur. Etiam illa cogitatio animum subit, usum hujusce rei jampridem contaminatum esse: multi enim, ut inventis et placitis suis antiquitatis venerationem acquirerent, poëtarum fabulas ad ea traducere conati sunt: atque vetus illa vanitas et frequens, nec nuper nata, aut raro usurpata est. Nam et olim Chrysippus stoicorum opinionis vetustissimis poëtis, veluti somniorum aliquis interpres, ascribere solebat; et magis insulse chemici ludos et delicias poëtarum in corporum transformationibus, ad fornacis experimenta transtulerunt. Hæc (inquam) cuncto nobis satis et explorata et expensa sunt; omnemque ingeniorum circa allegorias levitatem et indulgentiam perspeximus et notavimus, neque propterea omnino de sententia decedimus. Primo enim absit ut paucorum ineptiæ et licentia, parabolarum honori in genere detrahant. Hoc enim prophanum quiddam sonat et audax, cum hujusmodi velis et umbris religio gaudeat, ut qui eas tollat, commercia divinorum et humanorum fere interdicat. Verum de humana sapientia videamus. Fateor certe ingenue et libenter, me in hanc sententiam propendere, ut non paucis antiquorum poëtarum fabulis mysterium et allegoriam jam ab origine subesse putem; sive captus veneratione prisci seculi; sive quod in nonnullis fabulis reperio tantam et tam evidentem cum significato similitudinem et conjunctionem, tum in textura ipsa fabulæ, tum in proprietate nominum, quibus personæ sive actores fabulæ insigniti et veluti inscripti prodeunt; ut sensum illum ab initio præceptum et cogitatum fuisse, et de industria adumbratum, nemo constanter negaverit. Quis enim ita durus est et ad aperta cæcutiens, ut, cum audiat Famam, gigantibus extinctis, tanquam sororem posthumam progenitam esse, non illud ad murmura partium et famas seditiosas, quæ, sopitis rebellionibus, ad tempus vagari solent, referat? Aut cum audiat Typhonem gigantem nervos Jovis secnisse et abstulisse, ac Mercurium eos suffuratum esse, et Jovi reddidisse; non statim advertat hoc ad rebelliones prævalidas pertincre, quæ regibus nervos et pecuniarum et auctoritatis incidunt, ita tamen, ut per sermonum comitatem et prudentia edicta animi subditorum, non ita multo post, quasi furtim reconcilientur et vires regibus restituantur? Aut cum audint, in illa memorabili Deorum contra gigantes expeditione, asinum Sileni cum ruderet maximi momenti ad profligandos gigantes fuisse; non liquido cogitet hoc de vastis rebellium conatibus, qui plerumque per inanes rumores et terrores vanos dissipantur, confictum fuisse? Etiam nominum conformitas et judicium cui tandem hominum ob-

scurum esse potest? cum Metis uxor Jovis plane consilium sonet; Typhon tumorem; Pan universum; Nemesis vindictam; et similia. Neque illud quenquam moveat, si aliquid interdum historiæ subsit, aut si nonnulla ornamenti gratia addita sint, aut si tempora confundantur, aut si ex una fabula quippiam transferatur in aliam, et nova allegoria inducatur. Necesse enim fuit hæc fieri, cum inventa virorum fuerint, qui et ætate disjuncti, et instituto diversi erant; cum alii antiquiores, alii recentiores fuerint, alii rursus naturam rerum, alii res civiles sibi proponerent. Habemus etiam et aliud sensus occulti et involuti signum non parvum, quod nonnullæ ex fabulis tam absurdæ narratione ipsa et insulsæ inveniantur, ut parabolam etiam ex longinquo ostentent, et veluti clament. Quæ enim probabilis est fabula, etiam ad voluptatem et historiæ similitudinem conficta existimari potest: quod autem nulli in mentem venisset cogitare, aut narrare, id in alios usus quæsitum videtur. Quale enim figmentum illud; Jovem Metin in uxorem accepisse, eamque statim ut gravidam sensisset comedisse, unde ipse gravidus fieri cœpit, et Palladem armatam ex capite peperit? Equidem existimo nulli mortalium obvenire vel somnium tam extra cogitationis vias situm et monstrosum. Ante omnia illud apud nos maxime valuit, et plurimum ponderis habuit, quod ex fabulis complures nullo modo nobis videntur ab eis inventæ, a quibus recitantur et celebrantur, Homero, Hesiodo, reliquis; si enim liquido nobis constitisset eas ab illa ætate atque illis auctoribus manasse, a quibus commemorantur et ad nos devenerunt, nil magni certe aut excelsi ab hujusmodi origine nobis (ut nostra fert conjectura) exspectare aut suspicari in mentem venisset. Verum, si quis attentius rem consideret, apparebit, illas tradi et referri tanquam prius creditas, et receptas, non tanquam tum primo excogitatas et oblatas. Quinetiam cum diversis modis a scriptoribus fere eœvis referantur, facile cernas, quod commune habent, ex veteri memoria desumptum; in quo variant, ex singulorum ornatu additum. Atque hæc res existimationem earum apud nos auxit, ac si nec ætatis, nec inventionis poëtarum ipsorum essent: sed veluti reliquiæ sacræ, et auræ tenues, temporum meliorum; quæ ex traditionibus nationum magis antiquarum in Græcorum tubas et fistulas incidissent. Quod si quis obstinato animo contendat, allegoriam in fabula semper subdititiam et impositam, nec omnino nativam et genuinam fuisse: ei molesti non erimus, sed gravitatem illam judicii, quam affectat, licet hebetiorem et fere plumbeam, remittemus; atque illum (si modo dignus sit) alio modo, tanquam de integro adoriemur. Duplex apud homines repertus est atque increbuit parabolarum usus, atque, quod magis mirum sit, ad contraria adhibetur. Faciunt enim parabolæ ad involucrum et velum; faciunt etiam ad lumen et illustrationem. Atque misso illo usu priore, (potius quam lites suscipiamus,) et receptis fabulis antiquis, tanquam rebus vagis et ad delectationem compositis; manet tamen proculdubio posterior iste usus, neque ulla ingenii violentia nobis extorqueri possit, neque impediet quisquam, (qui sit mediocriter doctus,) quin protinus recipiatur modus iste docendi, tanquam res gravis et sobria, atque omnis vanitatis expers, et scientiis apprime utilis, imo et quandoque necessaria; nimirum ut in inventis nobis, et ab opinionibus vulgaribus remotis et penitus abstrusis, aditus ad intellectum humanum magis facilis et benignus per parabolas quæratur. Itaque antiquis seculis, cum rationis humanæ inventa, et conclusiones etiam eæ quæ nunc tritæ et vulgatæ sunt, tunc temporis novæ et insuetæ essent, omnia fabularum omnigenum, et ænigmatum, et parabolarum, et similitudinum plena erant: atque per hæc docendi ratio, non occultandi artificium, quæsitum est; rudibus scilicet tunc temporis hominum ingeniis, et subtilitatis, nisi quæ sub sensum cadebat, impatientibus et fere incapacibus. Nam ut hieroglyphica literis, ita parabolæ argumentis erant antiquiores. Atque etiam nunc, si quis novam in aliquibus lucem humanis mentibus affundere velit, idque non incommode et aspere, prorsus eadem via insistendum est, et ad similitudinum auxilia confugiendum. Quare quæ dicta sunt, ita claudemus. Sapientia prisci seculi, aut magna aut felix fuit: magna, si de industria excogitata est figura sive tropus: felix, si homines, aliud agentes, materiam et occasionem tantæ contemplationum dignitati præbuere. Operam autem nostram (si quid in ea sit quod juvet) in neutra re male collocatam censebimus. Aut enim antiquitatem illustrabimus, aut res ipsas. Neque nescius esse possem hanc rem ab aliis tentatam esse: sed tamen, ut, quod sentiam, eloquar, idque non fastidiose, sed libere, ejus decus et virtus ex hujusmodi laboribus, licet magnis et operosis, fere periit; dum homines, rerum imperiti et non ultra locos certos communes docti, parabolarum sensus ad vulgaria quædam et generalia applicaverunt, atque earundem vim veram, et proprietatem genuinam, ac indagationem altiorem, non attigerunt. Nos autem erimus (ni fallimur) in rebus vulgatis novi; et aperta et plana a tergo relinquentes, ad ulteriora et nobiliora tendemus.

I. CASSANDRIA, SIVE PARRHESIA.

Narrant Cassandram ab Apolline adamatam fuisse, atque variis artificiis ejus desideria clusisse, spes nihilominus fovisse quousque donum divinationis ab eo extorsisset; tum vero, nactam quod ab initio dissimulatione sua quæsivisset, preces ejus aperte rejecisse: illum, cum quod temere largitus erat nullo modo revocare posset, et tamen vindicta arderet, nec fœminæ callidæ ludibrio esse vellet, muneri suo pœnam addidisse; ut illa quidem vera semper prædiceret, sed nemo ei crederet: itaque vaticiniis ejus veritas affuit; fides defuit: quod illa perpetuo experta est etiam in excidio patriæ suæ, de qua sæpius monuerat, neminc auscultante aut credente.

Fabula de intempestiva et inutili libertate consiliorum et monitorum conficta videtur: qui enim ingenio sunt pervicaci et aspero, nec se Apollini, id est,

deo harmoniæ, submittere volunt, ut rerum modos et mensuras, sermonumque veluti tonos acutos et graves, aurium etiam magis peritarum et magis vulgarium differentias, tempora denique tum loquendi, tum silendi, ediscant et observent; licet sint prudentes et liberi, et consilia afferant sana et bona, nunquam tamen fere suasu et impetu suo proficiunt, neque ad res tractandas efficaces sunt; sed potius exitium eis, apud quos se ingerunt, maturant, et tum demum post calamitatem et eventum ut vates et in longum prospicientes celebrantur. Atque hujus rei exemplum eminet in M. Catone Uticensi. Ille enim interitum patriæ, et tyrannidem primo ex conspiratione, deinde ex contentione Cæsaris cum Pompeio secutam, diu ante, tanquam e specula prævidit, et tanquam ex oraculo prædixit: sed nil profecit interim, verum obfuit potius, et mala patriæ accelleravit. Id quod prudenter advertit, et eleganter describit M. Cicero, cum ad amicum ita scribat: "Cato optime sentit, sed nocet interdum reipublicæ: loquitur enim tanquam in republica Platonis, non tanquam in fæce Romuli."

II. TYPHON, SIVE REBELLIS.

Naaaant poëtæ Junonem, indignatam quod Jupiter Palladem ex sese sine ea peperisset, omnes deos atque deas precibus fatigasse, ut ipsa etiam sine Jove partum ederet: et postquam violentiæ et importunitati ejus annuissent, terram illa concussit, ex quo motu Typhon natus est, monstrum ingens et horrendum. Ille serpenti veluti nutritio datus est, ut ab eo aleretur. Nec mora, postquam adolevisset, quin bellum Jovi moveret. In eo conflictu Jupiter in potestatem gigantis venit, qui illum, in humeros sublatum, in regionem remotam et obscuram transportavit, et concisis nervis et manuum et pedum, et secum abreptis, mancum et mutilatum reliquit. Mercurius autem nervos Jovis Typhoni suffuratus est, atque eos Jovi restituit. Jupiter confirmatus, belluam rursus impetiit; ac primum fulmine vulneravit, ex cujus sanguine serpentes nati sunt. Tum demum ruentem et fugientem, Ætnam super eum jaculatus, mole montis oppressit.

Fabula de fortuna regum varia et rebellionibus, quæ in monarchiis quandoque evenire consueverunt, conficta est. Reges enim regnis suis, ut Jupiter Junoni, veluti matrimonii vinculo juncti recte consentur: sed accidit nonnunquam ut imperandi consuetudine depravati, et in tyrannidem vergentes, omnia ad se trahant, et, contempto ordinum et senatus sui consensu, ex sese pariant: id est, ex arbitrio proprio et imperio mero enncta administrent. Id populi ægre ferentes, et ipsi moliuntur caput aliquod rerum ex sese creare et extollere. Ea res ex occulta solicitatione nobilium et procerum fere initia sumit, quibus conniventibus, tum populi suscitatio tentatur; ex qua tumor quidam rerum (per Typhonis infantiam significatus) sequitur. Atque iste rerum status ab insita plebis pravitate et natura maligna (serpente regibus infestissimo) nutricatur. Defectione autem viribus coalita, postremo res in apertam rebellionem erumpit; quæ, quia infinita mala et regibus et populis infligit, sub dira illa Typhonis effigie repræsentatur, in qua centum capita ob divisas potestates, ora flammantia ob incendia, anguium cingula ob pestilentias, (præsertim in obsidionibus,) manus ferreæ ob cædes, ungues aquilini ob rapinas, corpus plumis contectum ob perpetuos rumores, et nuncios et trepidationes, et hujusmodi. Atque interdum rebelliones istæ tam prævalidæ sunt, ut reges cogantur, tanquam a rebellibus transportati, relictis regni sedibus et urbibus primariis, vires contrahere, et in remotam aliquam et obscuram provinciam ditionis suæ se recipere, nervis et pecuniarum et majestatis accisis: sed tamen non ita multo post, fortunam prudenter tolerantes, virtute et industria Mercurii nervos recipiunt, hoc est, affabiles facti, et per edicta prudentia, et sermones benignos, reconciliatis subditorum animis et voluntatibus, tandem alacritatem ad impensas conferendas, et novum auctoritatis vigorem excitant. Nihilominus, prudentes et cauti, aleam fortunæ tentare plerumque nolunt, et a pugna abstinent; sed tamen operam dant ut aliquo facinore memorabili existimationem rebellium frangant. Quod si ex voto succedat, illi, vulneris accepti conscii, et rerum suarum trepidi, primo ad fractas et inanes minas, veluti serpentum sibilos, se vertunt: deinde, rebus desperatis, fugam capessunt. Atque tum demum, postquam ruere incipiant, tutum est et tempestivum regibus copiis, et universa mole regni, tanquam Ætnæ monte, eos persequi et opprimere.

III. CYCLOPES, SIVE MINISTRI TEARURIS.

Naarant Cyclopes ob feritatem et immanitatem primo a Jove in Tartarum detrusos, et perpetuo carceri adjudicatos fuisse: verum postea Tellus Jovi persuasit, ei non abs re fore, si eos vinculis liberarei, et eorum opera ad fulmina fabricanda uteretur. Quod et factum est, atque illi officiosi et industrii fulmina atque alia terroris instrumenta assiduo opere et minaci strepitu fecerunt. Tempore autem labente evenit, ut Jupiter Æsculapio Apollinis filio succenseret, ob hominem medicina a morte excitatum; iram autem tegens, (quia parum justa indignandi causa suberat ob facinus pium et celebre,) Cyclopes in eum secreto instigavit, qui, nihil cunctati, fulmine eum interemere: in cujus rei vindictam, Apollo, Jove non prohibente, sagittis eos confecit.

Fabula ad regum facta pertinere videtur. Illi enim ministros sævos, et sanguinarios, et exactores, primo suppliciis afficiunt, et a rebus summovent: postea, ex consilio Telluris, id est, ignobili et parum honorifico, prævalente utilitate, eos rursus adhibent, sicubi aut executionum severitate aut exactionum acerbitate opus est. Illi, natura truces, et ex priore fortuna exasperati, et satis sentientes quid ab illis exspectetur, miram diligentiam in hujusmodi rebus præstant; sed parum cauti, et ad gratiam ineundam et aucupandam præcipites, aliquando ex secretis principum nutibus et incertis mandatis invidiosam aliquam executionem peragunt. Principes autem invidiam declinantes, et satis gnari hujusmodi instrumenta nunquam sibi defutura, eos destituunt: et propinquis et amicis eorum, qui pœnas subierunt, atque horum delationibus et vindictæ, et odio populari eos relinquunt, unde magno plausu, ex prosperis in reges votis et acclamationibus, sero magis quam immerito pereunt.

IV. NARCISSUS, SIVE PHILAUTIA.

Narcissus fuisse traditur forma et venustate mirabilis, sed superbia ingens, et fastidium intolerandum. Itaque cum sibi placeret, alios despiceret, vitam egit solitariam in sylvis et venationibus, cum paucis comitibus, quibus ipse omnia erat. Assectabatur etiam cum ubique nympha Echo. In hoc vitæ instituto fatale ei erat ad fontem quendam limpidum venire, et juxta eum sub æstum mediæ diei decumbere. Cum autem in aqua imaginem propriam aspexisset, in contemplationem sui, ac deinde in admirationem effusus et raptus, nullo modo ab hujusmodi spectro et simulacro distrahi poterat; sed perpetuo defixus obtorpuit; ac tandem in florem nominis sui conversus est; qui flos incunte vere se ostendit, et diis inferis, Plutoni, Proserpinæ, et Eumenidibus sacer est.

Fabula illorum et ingenia et fortunas repræsentare videtur, qui, sive ob formam, sive ob aliquas alias dotes, quibus ab ipsa natura, nulla accedente industria propria, ornati et insigniti sunt, effuse seipsos amant, et quasi depereunt. Cum hoc enim animi statu conjunctum fere est, ut non multum in publico, aut in rebus civilibus versentur; cum in eo vitæ genere necesse sit occurrere multos neglectus et vilipendia, quæ animos eorum dejicere et turbare possint. Itaque vitam plerumque degunt solitariam, et privatam, et umbratilem, cum perpauco comitum delectu, eoque ex iis, qui illos magnopere colere et admirari videntur, quique illis veluti echo in omnibus dictis suis assentantur, et verborum obsequia præstant. Ex hac consuetudine depravatos et inflatos, et tandem admiratione sui ipsius attonitos, mira occupat desidia et inertia, ut prorsus torpeant, et omni vigore et alacritate destituantur. Eleganter autem sumitur flos vernus ad hujusmodi ingeniorum similitudinem, cum illa ingenia sub initia sua floreant et celebrentur, sed ætate confirmata exspectationem de iis conceptam destituant et frustrentur. Eodem pertinet, quod flos ille diis inferis sacer sit; quia homines talis indolis ad omnia inutiles prorsus evadunt. Quicquid autem nullum ex se fructum edit, sed (veluti via navis in mari) transit et labitur, id apud antiquos umbris et diis inferis consecrari solebat.

V. STYX, SIVE FŒDERA.

Pervulgata est narratio, et in compluribus fabulis interponitur, de unico illo juramento, quo dii superi se obstringere solebant, cum pœnitentiæ locum sibi nullo modo relinqui volebant. Illud juramentum nullam majestatem cœlestem, nullum attributum divinum advocabat et testabatur; sed Stygem, fluvium quendam apud inferos, qui atria Ditis, multis spiris interfusus, cingebat. Hæc enim formula sacramenti sola, neque præter eam alia quæpiam firma habita est et inviolabilis: scilicet incumbebat pœna perjurii, diis imprimis metuenda, ut qui fefellisset, ad deorum convivia per certa annorum spatia non accederet.

Fabula de fœderibus et pactis principum conficta videtur: in quibus illud nimio plus, quam oporteret, verum est, fœdera, quacunque solennitate et religione juramenti munita, parum firma esse; adeo ut fere ad existimationem quandam, et famum, et ceremoniam magis, quam ad fidem, et securitatem, et effectum adhibeantur. Quin si accesserint etiam affinitatis vincula, veluti sacramenta naturæ, si merita mutua, tamen omnia infra ambitionem, et utilitatem, et dominationis licentiam esse, apud plerosque reperiuntur. Tanto magis, quod principibus facile sit, per prætextus varios et speciosos, cupiditates suas et fidem minus sinceram (nemine rerum arbitro, cui ratio sit reddenda) tueri et velare. Itaque unum assumitur verum et proprium fidei firmamentum, neque illud divinitas aliqua cœlestis: ea est necessitas (magnum potentibus numen) et periculum status, et communicatio utilitatis. Necessitas autem per Stygem eleganter repræsentatur, flumen fatale et irremeabile. Atque hoc numen advocavit ad fœdera Iphicrates Atheniensis, qui quoniam inventus est, qui ea aperte loqueretur, quæ plerique tacite animo volvunt, non abs re sit, ipsius verba referre. Is cum Lacedæmonios varias cautiones, et sanctiones, et fœderum firmamenta et vincula excogitare et proponere animadverteret, interfatus: "Unum" (inquit) "Lacedæmonii, nobis vobiscum vinculum, et securitatis ratio esse possit, si plane demonstretis, vos ea nobis concessisse, et inter manus posuisse, ut vobis facultas lædendi nos, si maxime velletis, minime suppetere possit." Itaque si facultas lædendi sublata sit, aut si ex fœdere rupto periculum ingruat perditionis, aut diminutionis status, aut vectigalium, tum demum fœdera rata et sancta, et tanquam juramento Stygis confirmata censeri possint: eum metus subsit interdicti illius et suspensionis a conviviis deorum; sub quo nomine imperii jura et prærogativæ, et affluentia et felicitas antiquis significantur.

VI. PAN, SIVE NATURA.

Antiqui* universam naturam sub persona Panis diligentissime descripserunt; hujus generationem in dubio reliquunt. Alii enim asserunt eum a Mercurio genitum; alii longe aliam generationis formam ei tribuunt; aiunt enim procos universos cum Penelope rem habuisse, ex quo promiscuo concubitu Pana communem filiam ortum esse. Atque in hac posteriore narratione, proculdubio, aliqui ex recentioribus veteri fabulæ nomen Penelopes imposuere, quod et frequenter faciunt, cum narrationes antiquiores ad personas et nomina juniora trahunt, idque quandoque absurde et insulse; ut hic cernere est; cum Pan ex antiquissimis diis, et longe ante tempora Ulyssis fuerit, atque insuper Penelope ob matronalem castitatem antiquitati venerabilis haberetur. Neque prætermittenda est tertia illa generationis explicatio: quidam enim prodiderunt eum Jovis et Hybreos, id est, contumeliæ, filium fuisse. Utcunque orto, Parcæ illi sorores fuisse perhibentur. Effigies autem Panis talis ab antiquitate describitur: cornutus, cornibus usque ad cœlum fastigiatis, corpore toto hispidus et villosus, barba imprimis promissa. Figura biformis, humana quoad superiora, sed semifera, et in capræ pedes desinens. Gestabat autem insignia potestatis, sinistra fistulam, ex septem calamis com-

* Fabula hæc invenitur, in libro secundo "De Augmentis Scientiarum," aucta et locupletata.

pactam; dextra pedum, sive ligaum, superius curvum et inflexum; induebatur autem chlamyde ex pelle pardalis. Potestates ei et munera hujusmodi attribuuntur, ut sit deus venatorum, etiam pastorum, et in universum ruricolarum: præsea item montium: erat etiam proximus Mercurio nuncius deorum. Habebatur insuper dux et imperator nympharum, quæ circa eum perpetuo choreas ducere et tripudiare solebant: comitabantur et Satyri, et his seniores Sileni. Habebat etiam potestatem terrores immittendi, præsertim inanes, et superstitiosos, qui et Panici vocati sunt. Res gestæ autem ejus non multæ memorantur: illud præcipuum, quod Cupidinem provocavit ad luctam, a quo etiam in certamine victus est. Etiam Typhonem gigantem retibus implicuit et cohibuit: atque narrant insuper, cum Ceres, mœsta et ob raptam Proserpinam indignata, se abscondisset, utque dii omnes ad eam investigandam magnopere incubuissent, et se per varias vias dispertiti essent; Pani solummodo ex felicitate quadam contigisse ut inter venandum eam inveniret et indicaret. Ausus est quoque cum Apolline de victuria musices decertare, atque etiam, Mida judice, prælatus est: ob quod judicium Midas asininas aures tulit, sed clam et secreto. Amores Panis nulli referuntur, aut saltem admodum rari, quod mirum inter turbam deorum, prorsus tam profuse amatoriam, videri possit. Illud solummodo ei datur, quod Echo adamuret, quæ etiam uxor ejus habita est, atque unam etiam nympham, Syringam nomine, in quam, propter iram et vindictam Cupidinis (quem ad luctam provocare non reveritus esset) incensus est. Neque etiam prolem ullam suscepit, (quod similiter mirum est, cum dii, præsertim masculi, prolifici admodum essent,) nisi quod ei tribuatur tanquam filia, mulierecula quædam ancilla, Iambe nomine, quæ ridiculis narratiunculis oblectare hospites solebat; ejusque proles ex conjuge Echo esse, a nonnullis existimabatur.

Fabula nobilis, si quæ alia, atque naturæ arcanis et mysteriis gravida, et quasi distenta.

Pan (ut et nomen ipsum etiam sonat) universitatem rerum, sive naturam, repræsentat et proponit. De hujus origine duplex omnino sententia est; utque adeo esse potest: aut enim a Mercurio est, verbo scilicet divino (quod et sacræ literæ extra controversiam ponunt, et philosophis iis, qui magis divini habiti sunt, visum est) aut ex confusis rerum seminibus. Qui enim unum rerum principium posuerunt, aut ad Deum illud retulerunt; aut si materiatum principium volunt, illud tamen potentia varium asseruerunt: adeo ut omnis hujusmodi controversia ad illam distributionem reducatur, ut mundus sit, vel a Mercurio, vel a procis omnibus.

> " Namque canebat uti magnum per inane coactis
> Semina terrarumque, animæque, marisque fuissent,
> Et liquidi simul ignis: ut his exordia primis
> Omnia, et ipse tener mundi concreverit orbis."
> VIRG. Ecl. vi. 31.

Tertia autem generatio Panis ejusmodi est, ut videantur Græci aliquid de Hebræorum mysteriis, vel per Ægyptios internuncios, vel utcunque, inaudivisse; pertinet enim ad statum mundi non in meris natalibus suis, sed post lapsum Adami, morti et corruptioni expositum et obnoxium factum. Ille enim status Dei et pacati proles fuit, ac manet. Itaque triplex ista narratio de generatione Panis etiam vera videri possit, si rite et rebus et temporibus distinguatur: nam iste Pan, quem intuemur et contemplamur, ac nimio plus quam oportet colimus, ex verbo divino, mediante confusa materia (quæ et ipsa a Deo creata erat) et subintrante prævaricatione et corruptione, ortum habet.

Naturæ rerum, fata rerum, sorores vere perhibentur et ponuntur; naturalium siquidem causarum catenæ ortus rerum, et durationes, et interitus, et depressiones, et eminentias, et labores, et felicitates, et fata denique omnia, quæ rebus accidere possunt, trahunt.

Cornua autem mundo attribuuntur. Quod cornua hujusmodi ab imo latiora, ad verticem acuta sint; id eo spectat, quod omnis rerum natura instar pyramidis acuta sit: individua enim infinita sunt; ea colliguntur in species et ipsas multiplices; species rursus insurgunt in genera; atque hæc quoque ascendendo in magis generaliu contrahuntur, ut tandem natura tanquam in unum coire videatur. Neque mirum est Panis cornua etiam cœlum ferire; eum summitates naturæ sive ideæ universales etiam ad divina quodammodo pertingant. Paratus enim et propinquus est transitus a metaphysica ad theologiam naturalem.

Corpus autem naturæ elegantissime et verissime depingitur hirsutum, propter rerum radios; radii enim sunt tanquam naturæ crines, sive villi, atque omnia fere vel magis vel minus radiosa sunt; quod in facultate visus manifestissimum est, nec minus in omni virtute et operatione ad distans; quicquid enim operatur ad distans, id etiam radios emittere recte dici potest; sed maxime omnium prominet barba Panis, quia radii corporum cœlestium maxime ex longinquo operantur et penetrant. Quin et Sol, quando, parte superiore ejus nube obvoluta, radii inferius erumpunt, ad aspectum barbatus cernitur.

Etiam corpus naturæ rectissime describitur biforme, ob differentiam corporum superiorum et inferiorum. Illa enim, ob pulchretudinem et motus æquabilitatem et constantiam, necnon imperium in terram et terrestria, merito sub humana figura repræsentantur: hæc autem, ob perturbationem et motus incompositos et quod a cœlestibus regantur, bruti animalis figura contenta esse possunt. Eadem corporis descriptio pertinet ad participationem specierum. Nulla enim natura simplex videri potest, sed tanquam ex duobus participans et concreta. Habet enim homo nonnihil ex bruto, brutum nonnihil ex planta, planta nonnihil ex corpore inanimato, omniaque revera biformia sunt et ex specie superiore et inferiore compacta. Acutissima autem est allegoria de pedibus capræ, propter motum ascensionis corporum terrestrium versus regiones aëria et cœli: capra enim animal scansiorum est, eaque e rupibus pendere, atque in præcipitiis hærere amat; quod etiam res, licet inferiori globo destinatæ, miris modis faciunt, ut in nubibus et meteoris manifestissimum est.

Insignia autem in manibus Panis duplicia. Alterum harmoniæ, alterum imperii. Fistula enim

ex septem calamis concentum rerum et harmoniam, sive concordiam cum discordia mixtam, quæ ex septem stellarum errantium motu conficitur, evidenter ostendit. Pedum autem illud etiam nobilis translatio est; propter vias naturæ partim rectas, partim obliquas. Præcipue autem lignum, sive virga, versus superiorem partem curva est; quia omnia providentiæ divinæ opera in mundo fere per ambages et circuitus fiunt; ut aliud agi videri possit, aliud interim revera agatur; ut Josephi venditio in Ægyptum, et similia. Quinetiam in regimine humano omni prudentiure, qui ad gubernacula sedent, populo convenientia per prætextus et vias obliquas felicius quæ volunt, quam ex directo, superinducunt et insinuant; adeo ut omnis imperii virga sive bacillum vere superius inflexum sit. Vestis Panis et amiculum ingeniose admodum ex pelle pardalis fuisse fingitur; propter maculas ubique sparsas; cœlum enim stellis, maria insulis, tellus floribus conspergunter; atque etiam res particulares fere variegatæ esse solent circa superficiem, quæ veluti rei chlamys est.

Officium autem Panis nulla alia re tam ad vivum proponi atque explicari potnerit, quam ut Deus venatorum sit: omnis enim naturalis actio, atque adeo motus et processus, nihil aliud quam venatio est. Nam et scientiæ et artes opera sua venantur, et concilia humana fines suos, atque res naturales omnes vel alimenta sua tanquam prædam, vel voluptates suas tanquam solatium, venantur, idque modis peritis et sagacibus.

> "Torva leæna lupum sequitur, lupus ipse capellam.
> Florentem cytisum sequitur lasciva capella."

Etiam rurieolarum in genere Pan deus est, quia hujusmodi homines magis secundum naturam vivant, cum in urbibus et aulis natura a cultu nimio corrumpatur; ut illud poëtæ amatorium verum sit,

> "Pars minima est ipsa puella sui."

Montium autem imprimis præses dicitur Pan, quia in montibus et locis editis natura rerum panditur, atque oculis et contemplationi magis subjicitur. Quod alter a Mercurio deorum nuncius sit Pan, ea allegoria plane divina est, cum proxime post verbum Dei, ipsa mundi imago divinæ potentiæ et sapientiæ præconium sit. Quod et poëta divinus cecinit: "Cœli enarrant gloriam Dei, atque opera manuum ejus indicat firmamentum."

Pana autem oblectant nymphæ; animæ scilicet; deliciæ enim mundi, animæ viventium sunt: ille autem merito earum imperator, cum illæ naturam quæque suam veluti ducem sequantur, et circa eam cum infinita varietate, veluti singulæ more patrio, saltent et choreas ducant, motu neutiquam cessante. Una perpetuo comitantur Satyri et Sileni; senectus scilicet et juventus; omnium enim rerum est ætas quædam hilaris et saltatrix; atque rursus ætas tarda et bibula: utriusque autem ætatis studia vere contemplanti (tanquam Democrito) fortasse ridicula et deformia videntur, instar satyri alicujus aut Sileni. De panicis autem terroribus prudentissima doctrina proponitur: natura enim rerum omnibus viventibus indidit metum, ac formidinem, vitæ atque essentiæ suæ conservatricem, ac mala ingruentia vitantem et depellentem: veruntamen eadem natura modum tenere nescia est; sed timoribus salutaribus semper vanos et inanes admiscet, adeo ut omnia (si intus conspici darentur) Panicis terroribus plenissima sint; præsertim humana, quæ superstitione (quæ vere nihil aliud, quam panicus terror, est) in immensum laborant; maxime temporibus duris et trepidis et adversis.

Quod vero attinet ad audaciam Panis, et pugnam per provocationem cum Cupidine; id eo spectat, quia materia non caret inclinatione et appetitu ad dissolutionem mundi et recidivationem in illud Chaos antiquum, nisi prævalida rerum concordia (per amorem sive Cupidinem significata) malitia et impetus ejus cohiberetur et in ordinem compelleretur: itaque bono admodum hominum et rerum fato fit, ut illud certamen Pan adversum experiatur, et victus abscedat. Eodem prorsus pertinet et illud de Typhone in retibus implicato; quia uteunque aliquando vasti, et insoliti rerum tumores sint, (id quod Typhon sonat,) sive intumescant maria, sive intumescant nubes, sive intumescat terra, sive alia, tamen rerum natura hujusmodi eorporum exsuperantias atque insolentias reti inextricabili implicat et coërcet, et veluti catena adamantina devincit.

Quod autem inventio Cereris huic deo attribuitur, idque inter venationem; reliquis diis negatur, licet sedulo quærentibus et illud ipsum agentibus; monitum habet verum admodum et prudens; hoc est, ne rerum utilium ad vitam et cultum inventio, qualis fuit segetum, a philosophiis abstractis, tanquam diis majoribus, exspectetur, licet totis viribus in illud ipsum incumbant; sed tantummodo a Pane, id est, experientia sagaci et rerum mundi notitia universali, quæ etiam casu quodam ac velnti inter venandum in hujusmodi inventa incidere solet.

Illud autem musicæ certamen, ejusque eventus, salutarem exhibet doctrinam, atque eam quæ rationi et judicio humano gestienti et se efferenti sobrietatis vincula injicere possit. Duplex enim videtur esse harmonia et quasi musica: altera providentiæ divinæ, altera rationis humanæ. Judicio enim humano, ac veluti auribus mortalium, administratio mundi et rerum, et judicia divina secretiora sonant aliquid durum et quasi absonum: quæ inscitia licet asininis auribus merito insigniatur, tamen et ipsæ illæ aures secreto, nec palam gestantur: neque enim hujusce rei deformitas a vulgo conspicitur aut notatur.

Postremo, minime mirum est, si nulli amores Pani attribuantur, præter conjugium Echus; mundus enim se ipso, atque in se rebus omnibus fruitur: qui amat autem, frui vult, neque in copia desiderio locus est. Itaque mundi amores esse nulli possunt, nec potiendi cupido, cum se ipso contentus sit, nisi fortasse sermones: ii sunt nympha, Echo, aut, si accuratiores sint, Syringa. Inter sermones autem, sive voces, excellenter ad conjugium mundi sumitur sola Echo; ea enim demum vera est philosophia, quæ mundi ipsius voces fidelissime reddit, et veluti dictante mundo conscripta est; et nihil aliud est, quam ejusdem simulacrum et reflexio, neque addit quicquam de proprio, sed tantum iterat et resonat. Ad mundi etiam sufficientiam et perfectionem perti-

net, quod prolem non edat: illc enim per partes generat; per totum autem quomodo generare possit, cum corpus extra ipsum non sit? Nam de filia ejus putativa, muliercula illa, est sane ea adjectio quædam ad fabulam sapientissima; per illam enim repræsentantur eæ, quæ perpetuis temporibus passim vagantur, atque omnia implent, vaniloquæ de rerum natura doctrinæ, re ipsa infruetuosæ, genere quasi subditiliæ, garrulitate vero interdum jucundæ, interdum molestæ et importunæ.

VII. PERSEUS, SIVE BELLUM.

Perseus * traditur fuisse a Pallade missus ad obtruncandam Medusam, quæ populis plurimis ad occidentem in extremis Hiberiæ partibus maximæ calamitati fuit. Monstrum enim hoc tam dirum atque horrendum fuit, ut aspectu solo homines in saxa verteret. Erat autem e Gorgonibus una ac sola mortalis Medusa: cum passivæ reliquæ non essent. Itaque Perseus, ad tam nobile facinus se comparans, arma ac dona a tribus diis accepit: talares alas a Mercurio, a Plutone galeam, scutum a Pallade et speculum. Neque tamen, licet tanto apparatu instructus, ad Medusam recta perrexit: sed primum ad Græas divertit; eæ sorores ex altera, parente Gorgonibus erant. Atque Grææ istæ eanæ jam a nativitate erant et tanquam vetulæ. Oculus autem iis tantummodo et dens erat omnibus unicus, quos prout exire foras quamque contigerat, vicissim gestare, reversæ autem iterum deponere solebant: hunc itaque oculum, atque hunc dentem illæ Perseo commodarunt. Tum demum enm se abunde ad destinata perficienda instructum judicaret, ad Medusam properavit impiger et volans: illam autem dormientem offendit: neque tamen aspectui ejus (si evigilaret) se committere audebat, sed cerviee reflexa, in speculum Palladis inspiciens, atque hoc modo ictus dirigens, caput ei abscidit. Ex sanguine autem Medusæ fuso statim Pegasus alatus emicuit. Caput autem abscissum Perseus in scutum Palladis inseruit, cui etiamnum sua mansit vis, ut ad ejus intuitum omnes ceu attoniti aut siderati ubrigerent.

Fabula de belligerandi ratione et prudentia conficta videtur. Atque in ipsa de bello suscipiendo et de genere belli eligendo deliberatione, tria proponit præcepta sana et gravia, tanquam ex consilio Palladis. Primo ut de subjugatione nationum finitimarum quis non admodum laboret. Neque enim eadem est patrimonii et imperii amplificandi ratio. Nam in possessionibus privatis vicinitas prædiorum spectatur: sed in propagando imperio occasio et belli conficiendi facilitas et fructus loco vicinitatis esse debent. Certe Romani, quo tempore occidentem versus vix ultra Liguriam penetraverant, orientis provincias usque ad montem Taurum armis et imperio complexi sunt. Itaque Perseus, licet orientalis, tamen longinquam expeditionem usque ad extrema occidentis minime detrectavit. Secundo, curæ esse debet, ut justa et honorifica subsit belli causa: id enim et alacritatem tum militibus, tum populis impensas conferentibus addit: et societates aperit et conciliat, et plurimas denique commoditates habet. Nulla autem belli causa magis pia sit, quam debellatio tyrannidis, sub qua populus succumbit, et prosternitur sine animis et vigore, tanquam sub aspectu Medusæ. Tertio, prudenter additur, quod cum tres Gorgones fuerint, (per quas bella repræsentantur,) Perseus illam delegerit, quæ fuerit mortalis; hoc est, bellum ejus conditionis, quod confici et ad exitum perduci posset, nec vastas aut infinitas spes persecutus est. Instructio autem Persei ea est, quæ ad bellum uniee confert et fortunam fere trahit. Accepit enim celeritatem a Mercurio, occultationem consiliorum ab Orco, et providentiam a Pallade. Neque caret allegoria, eaque prudentissima, quod alæ illæ celeritatis talares, non axillares fuerint, atque pedibus, non humeris additæ: quia non tam in primis belli aggressibus, quam in eis quæ sequuntur, et primis subsidio sunt, celeritas requiritur: nullus enim error in bellis magis frequens est, quam quod prosecutiones et subsidiarii impetus initiorum alacritati non respondent. Etiam illa providentiæ divisio (nam de galea Plutonis, quæ homines invisibiles reddere solebat, parabola manifesta est) ingeniosa videtur, de scuto et speculo; neque enim ea providentia solum adhibenda est, quæ cavet instar scuti, sed illa altera, per quam hostium vires, et motus, et consilia cernuntur, instar speculi Palladis. Verum Perseo, utcunque copiis aut animis instructo, restat aliud quiddam maximi per omnia momenti antequam incipiatur bellum, nimirum ut divertat ad Græas. Grææ autem proditiones sunt, bellorum scilicet sorores, non germanæ illæ quidem, sed generis nobilitate quasi impares. Bella enim generosa, proditiones degeneres et turpes. Earum descriptio elegans est; ut canæ a nativitate sint et tanquam vetulæ, propter perpetuas proditorum curas et trepidationes: earum autem vis (antequam in manifestam defectionem erumpant) aut in oculo, aut in dente est: omnis enim factio, a statu quopiam alienata, et speculatur, et mordet: atque hujusmodi oculus et dens tanquam communis est. Nam quæ didicerunt et noverunt, fere per manus factionis ab uno ad alterum transeunt et pereurrunt. Et quod ad dentem attinet, uno fere ore mordent, et similem cantilenam canunt, ut si unum audias, omnes audias. Itaque Perseo conciliandæ sunt istæ Grææ, ut oculum et dentem ei commodent: oculum ad indicia, dentem ad rumores serendos, et invidiam conflandam, et animos hominum solicitandos. His itaque dispositis et præparatis, sequitur ipsa belli actio. In ea Medusam dormientem invenit: prudens enim belli susceptor semper fere hostem assequitur imparatum et securitati propiorem: atque nunc tandem speculo Palladis opus est; plurimi enim ante ipsa pericula res hostium acute et attente introspicere possunt; sed in ipso periculi articulo præcipuus est usus speculi, ut modus periculi cernatur, terror non offundatur (quod per illum intuitum capite averso significatur). A bello perfecto sequuntur effecta duo: primum Pegasi illa generatio et exsuscitatio, quæ satis evidenter Famam denotat, quæ per omnia volat et victoriam celebrat; secundum gestatio capitis Medusæ in scuto; siquidem nullum præsidii genus huic ob præstantiam comparari possit. Unicum enim facinus insigne et memorabile, feliciter gestum et perpetratum, om-

* Fabula hæc invenitur, in libro secundo "De Augmentis Scientiarum," aucta et locupletata.

nes inimicorum motus cohibet, atque malevolentiam ipsam stupidam reddit.

VIII. ENDYMION, SIVE ORATIOSUS.

Pastor Endymion traditur a Luna fuisse adamatus: novum autem et singulare erat consuetudinis genus, siquidem ille decumbebat in nativa quadam specu sub saxis Latmiis; Luna autem haud raro de cœlo perhibetur descendisse, et sopiti oscula petiisse, ac rursus in cœlum se recepisse. Neque tamen otium istud et somnus in detrimentum fortunarum ejus cedebat, sed Luna interim effecit, ut pecus ejus pingueseeret admodum, ac numero etiam felicissime auctum esset, ut nulli pastorum greges essent lætiores, aut numerosiores.

Fabula ad ingenia et mores principum pertinere videtur. Illi enim, cogitationum pleni et in suspiciones propensi, non facile ad consuetudinem vitæ interiorem recipiunt homines, qui sunt perspicaces, et curiosi, et quasi animo vigilantes, sive exsomnes: sed potius eos, qui ingenio sunt quieto et morigero, et quod placitum est illis patiuntur, et nil ultra inquirunt, sed se veluti ignaros, et nil sentientes, et quasi sopitos præbent; deniqoe magis obsequium simplex, quam observantiam callidam, præstant. Etenim eum hujusmodi hominibus principes de majestate sua, veluti Luna de orbe superiore, descendere, et personam (quam perpetuo gerere instar oneris cujusdam sit) deponere, et familiariter versari, libenter consueverunt, idque se tuto facere posse putant. Id quod in Tiberio Cæsare, principe omnium maxime difficili, præcipue annotatum fuit: apud quem illi solummodo gratiosi erant, qui notitiam morum ejus revera habebant, sed pertinaciter et quasi stupide dissimulabant. Quod etiam Ludovico undecimo Franeorum regi, principi cautissimo et callidissimo, in moribus erat. Neque inelegantcr in fabula ponitur antrum illud Endymionis: quia fere usitatum est illis, qui hujusmodi gratia apud principes florent, habere secessus aliquos amœnos, quo illos invitent ad otium et animi remissionem, absque fortunæ suæ mole. Qui autem in hoc genere gratiosi sunt, plerumque rem suam bene agunt: nam principes, licet fortasse ad honores eos non evehant, tamen, cum vero affectu, nec propter utilitatem tantum illos diligant, munificentia sua eos ditare consueverunt.

IX. SOROR GIGANTUM, SIVE FAMA.

Memorant poëtæ, Gigantes e, terra procreatos bellum Jovi et superis intulisse, et fulmine disjectos et devictos fuisse. Terram autem, deorum ira irritatam, in vindictam natorum suorum Famam progenuisse, extremam gigantibus sororem.

"Illam Terra parens, ira irritata deorum,
Extremam (ut perhibent) Cœo Enceladoque sororem,
Progenuit."
Æn. iv. 178.

Hujus fabulæ ea sententia videtur esse: per terram, naturam vulgi significarunt, perpetuo tumidam et malignam versus imperantes, et res novas parturientem: hæc ipsa, occasionem adepta, rebelles parit et seditiosos, qui principes ausu nefario extrahere et dejicere machinantur; quibus oppressis, eadem plebis natura, deterioribus favens, et tranquillitatis impatiens, rumores gignit, et susurros malignos, et famas querolas, et famosos libellos, et cætera id genus, ad invidiam eorum qui rebus præsunt: ut actiones rebellium, et famæ seditiosæ genere et stirpe non differant; sed veluti sexu tantum, cum istæ muliebres videantur, illæ viriles.

X. ACTÆON ET PENTHEUS, SIVE CURIOSUS.

Curiositas humana in secretis rimandis, et eorum notitia appetitu male sano concupiscenda, et prensanda, duplici exemplo apud antiquos coërcetur: altero Actæonis, altero Penthei. Actæon, eum Dianam imprudens et casu sine veste vidisset, in cervum versus, a canibus, quos alebat, dilaceratus est. Pentheus, eum sacrificiorum Bacchi occultorum, cunscensa arbore, spectator esse voluisset, furore pereitus est. Fuit autem Penthei dementia ejus generis, ut res congeminasse existimaret, et duo soles et rursus duæ Thebæ ei ob oculos versarentur; adeo ut, eum Thebas properaret, statim alteris Thebis conspectis retraheretur: atque hoc modo perpetuo et irrequiete sursum et deorsum ferretur.

"Eumenidum veluti demens videt agmina Pentheus,
Et solem geminum, et duplices se ostendere Thebas."
Æn. iv. 469.

Fabularum prima, ad secreta principum; secunda, ad secreta divina pertinere videtur. Qui enim principibus non admissi, et præter eorum voluntatem secretorum conscii sunt, odium certissimum apud eos consequuntur. Itaque gnari se peti, et occasiones captari, vitam degunt, cervorum more, timidam et suspicionibus plenam. Quin et illud sæpius accidit, ut a servis et domesticis, in gratiam principum, accusentur et subvertantur. Ubi enim principis offensio manifesta est; quot servi, tot fere proditores esse consueverunt; ut Actæonis fatum illos maneat. Alia est Penthei calamitas. Qui enim ausu temerario, mortalitatis parum memores, per excelsa naturæ et philosophiæ fastigia (tanquam arbore conscensa) ad mysteria divina aspirant, his pœna proposita est, perpetuæ inconstantiæ, et judicii vacillantis et perplexi. Cum enim aliud sit lumen naturæ, aliud divinum; ita cum illis fit, ac si duos soles viderent. Cumque actiones vitæ et decreta voluntatis ab intellectu pendeant, sequitur etiam ut non minus voluntate, quam opinione, hæsitent, nec sibi omnino constent: itaque et duas Thebas similiter vident. Per Thebas enim actionum fines describuntur (cum Thebis Pentheo esset domus et persoginm). Hinc fit, ut nesciant quo se vertant, sed, de summa rerum incerti et fluctuantes, tantum subitis mentis impulsibus in singulis circumagantur.

XI. ORPHEUS, SIVE PHILOSOPHIA.

Fabula de Orpheo vulgata, nec tamen interpretem fidum per omnia sortita, philosophiæ universæ imaginem referre videtur. Persona enim Orphei, viri admirandi et plane divini, et omnis harmoniæ periti, et modis suavibus cuncta vincentis, et trahentis, ad philosophiæ descriptionem facili transitu tradueitur. Labores enim Orphei labores Herculis, quemadmodum opera sapientiæ opera fortitudinis, dignitate et

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potentia superant. Orpheus, ob amorem uxoris, morte immatura præreptæ, fretus lyra, ad inferos descendere sibi in animum induxit, ut manes deprecaretur, neque spe sua decidit. Nam, placatis manibus et delinitis suavitate cantus, et modulationibus, tantum apud eos potuit, ut ei uxorem secum abducere indultum sit: ea tamen lege, ut illa eum a tergo sequeretur, ipse autem antequam ad luminis oras perventum esset ne respiceret. Quod cum ille nihilominus, amoris et curæ impatientia (postquam fere in tuto esset) fecisset, rupta sunt fœdera: atque illa ad inferos gradu præcipiti relapsa est. Ab illo tempore Orpheus, mœstus, et mulierum osor, in solitudines profectus est, ubi eadem cantus et lyræ dulcedine primo feras omnigenas ad se traxit, adeo ut, naturam suam exuentes, nec irarum aut ferocitatis memores, nec libidinis stimulis et furoribus præcipites uetuæ, nec ingluviem satiare, aut prædæ inhiare amplius curantes, in morem theatri, illum circumstarent, benignæ et mansuetæ inter se factæ, et tantum lyræ concentui aures præbentes. Neque is finis, sed tanta musicæ vis et potentia fuit, ut etiam sylvas moveret, et lapides ipsos, ut illa quoque se transferrent, et sedes suas circa eum, ordine et modo decenti, ponerent. Hæc ei cum ad tempus feliciter et magna cum admiratione cessissent; tandem Thraciæ mulieres stimulis Bacchi pereitæ, primo cornu raucum et immane sonans inflarunt: ex eo, propter strepitum, musicæ sonus amplius audiri non potuit: tum demum soluta virtute, quæ ordinis et societatis istius erat vinculum, turbari cœptum est, et feræ singulæ ad naturam suam redierunt, et se invicem ut prius persecutæ sunt; neque lapides aut sylvæ suis mansere locis: Orpheus autem ipse tandem a mulieribus furentibus discerptus est, et sparsus per agros; ob cujus mortis mœrorem Helicon (fluvius Musis sacer) aquas sub terram indignatus condidit, et per alia loca caput rursus extulit.

Sententia fabulæ ea videtur esse. Duplex est Orphei cantio: altera ad placandos manes; altera ad trahendas feras et sylvas. Prior ad naturalem philosophiam, posterior ad moralem et civilem aptissime refertur. Opus enim naturalis philosophiæ longe nobilissimum, est ipsa restitutio et instauratio rerum corruptibilium, et (hujusce rei tanquam gradus minores) corporum in statu suo conservatio, et dissolutionis et putredinis retardatio. Hoc si omnino fieri detur, certe non aliter effici potest, quam per debita et exquisita naturæ temperamenta, tanquam per harmoniam lyræ, et modos accuratos. Et tamen cum sit res omnium maxime ardua, effectu plerumque frustratur; idque (ut verisimile est) non magis aliam ob causam, quam per curiosam et intempestivam sedulitatem et impatientiam. Itaque philosophia, tantæ rei fere impar, atque idcirco merito mœsta, vertit se ad res humanas, et in animos hominum, suasu et eloquentia, virtutis, et æquitatis, et pacis amorem insinuans, populorum cœtus in unum coire facit; et juga legum aeciperc, et imperiis se submittere, et affectuum indomitorum oblivisci, dum præceptis et disciplinæ auscultant, et obtemperant: unde paulo post ædificia exstruuntur, oppida conduntur, agri et horti arboribus conseruntur; ut lapides et sylvas non abs re convocari et transferri dictum sit. Atque ista rerum civilium cura rite atque ordine ponitur post experimentum corporis mortalis restituendi sedulo tentatum, et ad extremum frustratum: quia mortis necessitas inevitabilis, evidentius proposita, hominibus ad æternitatem meritis et nominis fama quærendam animos addit. Etiam prudenter in fabula additur, Orpheum a mulieribus et nuptiis alieno animo fuisse, quia nuptiarum delinimenta, et liberorum charitates, homines plerumque a magnis et excelsis erga respublicas meritis avertunt, dum immortalitatem propagine, non factis, assequi satis habent. Verum et ipsa sapientiæ opera, licet inter humana excellant, tamen et suis periodis elauduntur. Evenit enim ut postquam regna et respublicæ ad tempus floruerint, subinde perturbationes, et seditiones, et bella oriantur; inter quorum strepitus primo leges conticescunt, et homines ad naturæ suæ depravationes redeunt; atque etiam in agris, atque oppidis vastitas conspicietur. Neque ita multo post (si hujusmodi furores continuentur) literæ etiam, et philosophia certissime discerpitur: adeo ut fragmenta tantum ejus, in paucis locis, tanquam naufragii tabulæ, inveniantur, et barbara tempora ingruant; Helicouis aquis sub terra mersis; donec, debita rebus vicissitudine, non iisdem fortasse locis, sed apud alias nationes erumpant et emanent.

XII. CŒLUM, SIVE ORIGINES.

Tradunt poëtæ Cœlum antiquissimum deorum extitisse; hujus partes generationis a filio Saturno falce demessas fuisse. Saturnum autem sobolem numerosam generasse: sed filios continuo devorasse, tandem vero Jovem exitium effugisse, et adultum patrem Saturnum in Tartarum detrusisse, et regnum accepisse; quinetiam patris genitalia eadem falce, qua ille Cœlum exsecuerat, abscidisse, atque in mare projecisse, inde Venerem natam esse. Postea vero Jovis regnum vix confirmatum, duo memorabilia bella excepisse. Primum, Titanum, in quibus debellandis Solis operam (qui solus ex Titanibus Jovis rebus favebat) egregiam fuisse: secundum, Gigantum, qui et ipsi fulmine et Jovis armis disjecti sunt; quibus domitis, Jovem securum regnasse.

Fabula videtur ænigma de origine rerum, non multum discrepans ab ea philosophia, quam postea Democritus amplexus est, qui apertissime omnium æternitatem materiæ asseruit, æternitatem mundi negavit; in quo aliquanto proprius ad veritatem verbi divini accessit, cujus narratio materiam informem ante opera dierum statuit. Sententia fabulæ hujusmodi est. Cœlum esse concavum illud, sive ambitum, quod materiam complectitur. Saturnum autem materiam ipsam, quæ omnem generandi vim parenti præscidit. Summam enim materiæ perpetuo eandem esse; neque ipsum quantum naturæ erescere aut minui. Agitationes autem et motus materiæ, primo imperfectas et male cohærentes rerum compages produxisse, et veluti tentamenta mundorum: dein ævi processu fabricam ortam esse, quæ formam suam tueri et conservare posset. Itaque priorem ævi distributionem per regnum Saturni significari, qui ob frequentes rerum dissolutiones, et breves durationes, filiorum suorum devorator ha-

bitus est: secundam autem per regnum Jovis, qui continuas istas et transitorias mutationes in Tartarum detrusit; qui locus perturbationem significat. Is locus videtur esse spatium inter ima cœli et interiora terræ medium; quo intervallo perturbatio et fragilitas et mortalitas sive corruptio maxime versatur. Atque durante priore illa generatione rerum, quæ sub regno Saturni tenuit, Venerem natam non fuisse. Donec enim in universitate materiæ discordia esset concordia potior et valentior, mutatio per totum necessario facta est, atque in ipsa fabrica integrali. Tales vero generationes rerum extiterunt, antequam Saturnus exsectus esset. Hunc vero generationis modum cessantem alter ille modus continuo excepit, qui per Venerem fit, adulta et prævalida rerum concordia: ut mutatio tantum per partes procedat, integra et inconcussa fabrica universali. Saturnum tamen detrusum et deturbatum, non peremptum et exstinctum narrant, quia mundum in antiquam confusionem, et interregna relabi posse, opinio Democriti erat: quod Lucretius ne suis temporibus eveniret deprecatus est:

> "Quod procul a nobis flectat fortuna gubernans,
> Et ratio potius, quam res, persuadeat ipsa."
>
> Lib. v. 198.

Postquam autem mundus mole et vi sua consisteret, tamen otium ab initio non fuisse. Nam secutos primum in cœlestibus regionibus motus notabiles, qui virtute, solis in cœlestibus prædominante, ita sopiti sunt, ut mundi status conservaretur: postea similiter in inferioribus; per inundationes, tempestates, ventos, terræ motus magis universales, quibus etiam oppressis et dissipatis, magis pacata ac durabilis rerum conspiratio et tranquillitas accrevit. Verum de ista fabula utrumque pronunciari potest, et fabulam philosophiam continere, et philosophiam rursus fabulam. Novimus enim (ex fide) hæc omnia nil aliud esse, quam sensus jampridem cessantia et deficientia oracula: cum mundi et materia et fabrica ad creatorem verissime referatur.

XIII. PROTEUS, SIVE MATERIA.

Narrant poëtæ Proteum Neptuno pastorem fuisse; eundemque senem et vatem; vatem scilicet præstantissimum et veluti ter maximum. Noverat enim non futura solummodo, sed et præterita et præsentia, adeo ut, præter divinationem, etiam omnis antiquitatis et omnium secretorum nuncius ac interpres esset. Morabatur autem sub ingenti specu. Ibi ei mos erat sub meridiem gregem suum phocarum numerare, atque deinde somno se dare. Qui autem opera ejus aliqua in re uti volebat, is non alio modo apud eum valere poterat, nisi cum manicis comprehensum vinculis constringeret. Ille contra, ut se liberaret, in omnes formas, atque rerum miracula, ignem, lympham, feras, se vertere solebat; donec tandem in pristinam formam restitueretur.

Sensus fabulæ ad abdita naturæ et conditiones materiæ pertinere videtur. Sub Protei enim persona materia significatur, omnium rerum post Deum antiquissima. Materia autem sub cœli concavo, tanquam sub specu, habitat. Neptuni autem mancipium est, quia omnis materiæ operatio et dispensatio in liquidis præcipue exercetur. Pecus autem, sive grex Protei, non aliud videtur esse, quam species ordinariæ animulium, plantarum, metallorum, in quibus materia videtur se diffundere et quasi consumere; adeo ut postquam istas species effinxerit, et absolverit (tanquam penso completo) dormire et quiescere videatur, nec alias amplius species moliri, tentare, aut parare. Atque hæc est Protei pecoris numeratio, et subinde somnus. Hoc autem sub meridiem, non auroram et vesperum, fieri dicitur; id est, cum tempus jam venerit, quod speciebus ex materia debite præparata et prædisposita perficiendis et excludendis maturum sit, et quasi legitimum, et inter rudimenta earum et declinationes medium; quod nos satis scimus ex historia sacra sub tempus ipsum creationis fuisse; tum enim per virtutem illam divini verbi "Producat," materia ad imperium Creatoris, non per ambages suas, sed subito confluxit, et opus suum in actum affatim perduxit, ac species constituit. Atque hucusque fabula narrationem suam de Proteo libero et soluto cum pecore suo complet. Nam universitas rerum, cum structuris et fabricis specierum ordinariis, est materiæ non constrictæ aut devinctæ, et gregis materiatorum facies. Nihilominus si quis peritus naturæ minister vim adhibeat materiæ, et materiam vexet, atque urgeat, tanquam hoc ipso destinato et proposito, ut illam in nihilum redigat; illa contra (cum annihilatio, aut interitus verus, nisi per Dei omnipotentiam fieri non possit) in tali necessitate posita in miras rerum transformationes et effigies se vertit: adeo ut tandem veluti in orbem se mutet, et periodum impleat, et quasi se restituat, si vis continuetur. Ejus autem constrictionis seu alligationis ratio magis facilis erit et expedita, si materia per manicas comprehendatur, id est, per extremitates. Quod autem additur in fabula, Proteum vatem fuisse, et trium temporum gnarum, id cum materiæ natura optime consentit. Necesse est enim, ut qui materiæ passiones et processus noverit, rerum summam et earum, quæ factæ sunt, et quæ fiunt, et quæ insuper futuræ sunt, comprehendat, licet ad partes et singularia cognitio non extendatur.

XIV. MEMNON, SIVE PRÆMATURUS.

Memorant poëtæ Memnonem Auroræ filium fuisse. Ille armorum pulchritudine insignis, et aura populari celebris, ad bellum Trojanum venit, et ad summa ausu præcipiti festinans et anhelans, cum Achille, Græcorum fortissimo, certamen singulare initat, atque ejus dextra occubuit. Hunc Jupiter miseratus aves lugubre quiddam et miserabile perpetuo quiritantes ad exsequias ejus et funeris decus excitavit; ejusdem statua quoque, solis orientis radiis percussa, sonum flebilem edere solita fuisse perhibetur.

Fabula ad adolescentum summæ spei calamitosos exitus pertinere videtur. Illi enim tanquam Auroræ filii sunt; atque inanium et externorum specie tumidi, majora fere viribus audent, atque heroës fortissimos lacessunt, et in certamen deposcunt, et impari congressu succumbentes, exstinguuntur: horum autem mortem infinita commiseratio sequi solet; nil enim inter fata mortalium tam flebile est, tamque potens ad misericordiam commovendam, quam virtutis flos immaturo exitu præcisus. Neque enim

prima ætas ad satietatem scilicet, aut ad invidiam usque duravit, quæ mœstitiam in obitu lenire, aut misericordiam temperare possit; quinetiam lamentationes et planctus non solum tanquam aves illæ funebres circa rogos eorum volitant, sed et durat hujusmodi miseratio et producitur: maxime autem per occasiones et novos motus, et initia magnarum rerum, veluti per solis radios matutinos, desideria eorum renovantur.

XV. TITHONUS, SIVE SATIETAS.

Elegans fabula narratur de Tithono, eum ab Aurora adamatum fuisse, quæ perpetuam ejus consuetudinem exoptans, a Jove petiit, ut Tithonus nunquam mori posset: verum incuria muliebri oblita est petitioni suæ et illud inserere, ut nec senectute gravaretur. Itaque moriendi conditio ei erepta est, seninm autem secutum est mirum et miserandum, quale consentaneum est, evenire ei, cui mors negatur, ætas perpetuo ingravescit. Adeo ut Jupiter, hujusmodi sortem miseratus, tandem eum in cicadam converterit.

Hæc fabula ingeniosa adumbratio et descriptio voluptatis esse videtur; quæ a principio, velut sub tempus Auroræ, adeo grata est, ut homines vota faciant ut gaudia hujusmodi sibi perpetua et propria sint, obliti satietatem et tædium eorum, instar senii, ipsis non cogitantibus obventura. Adeo ut ad extremum, cum actiones voluptariæ homines deserant, cupido vero et affectus non moriantur, fieri soleat ut homines sermonibus tantum et commemorationibus earum rerum, quæ eis integra ætate voluptati fuerunt, se oblectent. Quod in libidinosis et viris militaribus fieri videmus, cum illi impudicos sermones, hi facinora sua retractent, cicadarum more, quarum vigor tantum in voce est.

XVI. PROCUS JUNONIS, SIVE DEDECUS.

Narrant poëtæ Jovem, ut amoribus suis potiretur, multas et varias formas sumpsisse, tauri, aquilæ, cycni, imbris aurei; cum autem Junonem solicitaret, vertisse se in formam maxime ignobilem, atque contemptui et ludibrio expositam. Ea fuit miseri cuculi, imbre et tempestate madefacti et attoniti, tremebundi, et semimortui.

Prudens fabula est, et ex intimis moribus desumpta. Sensus vero talis, ne homines nimium sibi placeant, existimantes virtutis suæ specimen eos apud omnes in pretio et gratia poncre posse. Id enim succedere pro natura et moribus eorum, quos ambiunt et colunt; qui si homines sunt nullis ipsi dotibus et ornamentis insigniti; sed tantum ingenio sunt superbo et maligno, (id quod sub figura Junonis repræsentatur,) tum vero norint sibi exuendam prorsus esse omnem personam, quæ vel minimum præ se ferat decoris et dignitatis: atque decipere se plane, si alia via insistant; neque satis esse si obsequii deformitatem præstant, nisi omnino se in personam abjectam et degenerem mutent.

XVII. CUPIDO, SIVE ATOMUS.

Quæ de Cupidine sive Amore dicta sunt a poëtis, in eandem personam proprie convenire non possunt: ita tamen discrepant, ut confusio personarum rejiciatur, similitudo recipiatur. Narrant itaque Amorem omnium deorum fuisse antiquissimum, atque adeo omnium rerum, excepto Chao, quod ei cœvum perhibetur; Chaos autem a priscis viris nunquam divino honore, aut nomine Dei insignitur. Atque Amor ille prorsus sine parente introducitur; nisi quod a nonnullis ovum Noctis fuisse traditur. Ipse autem ex Chao et deos et res universas progenuit. Ejus autem attributa ponuntur numero quatuor, ut sit infans perpetuus, cæcus, nudus, sagittarius. Fuit et Amor quidam alter, Deorum natu minimus, Veneris filius; in quem etiam antiquioris attributa transferuntur, et quodam modo competunt.

Fabula ad cunabula naturæ pertinet et penetrat. Amor iste videtur esse appetitus, sive stimulus materiæ primæ, sive (ut explicatius loquamur) motus naturalis atomi. Hæc enim est illa vis antiquissima et unica, quæ ex materia omnia constituit et affingit. Ea omnino sine parente est; id est, sine causa. Causa enim effectus veluti parens est: hujus autem virtutis causa nulla potest esse in natura (Deum enim semper excipimus). Nihil enim hac ipsa prius; itaque efficiens nulla: neque aliquid naturæ notius; ergo nec genus nec forma; quamobrem quæcunque ea tandem sit, positiva est et surda. Atque etiam si modus ejus et processus sciri daretur; tamen per causam sciri non potest; cum sit post Deum causa causarum, ipsa incausabilis. Neque fortasse modum ejus intra inquisitionem humanam sisti, aut comprehendi posse sperandum est; itaque merito fingitur ovum a Nocte exclusum; certe sanctus philosophus ita pronuntiat: "Cuncta fecit pulchra tempestatibus suis, et mundum tradidit disputationibus eorum, ita tamen ut non inveniat homo opus, quod operatus est Deus a principio usque ad finem." Lex enim summaria naturæ, sive virtus istius Cupidinis, indita primis rerum particulis a Deo ad coitionem, ex cujus repetitione et multiplicatione omnis rerum varietas emergit et conflatur; cogitationem mortalium perstringere potest, subire vix potest. Philosophia autem Græcorum invenitur in rerum materiatis principiis investigandis magis acuta et solicita; in principiis autem motus (in quibus omnis operationis vigor consistit) negligens et languida. In hoc autem, de quo agimus, prorsus cæcutire et balbutire videtur: etenim Peripateticorum opinio, de stimulo materiæ per privationem, fere non ultra verba tendit, et rem potius sonat, quam signat. Qui autem hoc ad Deum referunt, optime illi quidem, sed saltu, non gradu ascendunt: est enim proculdubio unica et summaria lex, in quam natura coit, Deo substituta: ea ipsa, quæ in superiore textu illo verborum complexu demonstratur. "Opus, quod operatus est Deus a principio usque ad finem." Democritus autem, qui altius rem perpendit, postquam atomum dimensione nonnulla, et figura instruxerat, unicum Cupidinem sive motum primum ei attribuit simpliciter, et ex comparatione alterum. Omnia enim ad centrum mundi ferri putavit proprie; quod autem plus materiæ habet, cum celerius ad centrum feratur, illud, quod minus habet, percussione summovere et in contrarium pellere. Verum ista meditatio angusta fuit, et ad pauciora quam par erat respiciens. Neque enim aut corporum cœlestium in

orbem conversio aut, rerum contractiones et expansiones ad hoc principium reduci, aut accommodari posse videntur. Epicuri autem opinio de declinatione atomi et agitatione fortuita, ad nugas rursus et ignorationem rei lapsa est. Itaque nimio plus quam optaremus, illud apparet, istum Cupidinem nocte involvi. Itaque de attributis videamus. Elegantissime describitur Cupido infans, pusillus et perpetuus; composita enim grandiora sunt et ætatem patiuntur; prima autem rerum semina, sive atomi, minuta sunt, et in perpetua infantia permanent. Etiam illud verissime, quod audus; cum composita universa recte cogitanti personata et induta sint; nihilque proprie nudum sit præter primas rerum particulas. Illa autem de cæcitate Cupidinis sapientissima allegoria est. Iste enim Cupido (qualiscunque is sit) minimum videtur habere providentiæ; sed secundum illud, quod proximum sentit, gressum et motum suum dirigere; ut cæci palpando solent; quo magis admirabilis est providentia illa summa divina, quia ex rebus providentia maxime vacuis et expertibus et quasi cæcis, certa tamen et fatali lege, istum ordinem et pulchritudinem rerum educit. Ultimum attributum ponitur, quod sagittarius sit, hoc est, quod ista virtus talis sit, ut operetur ad distans. Quod enim ad distans operatur, tanquam sagittam emittere videtur: quisquis autem atomum asserit, atque vacuum (licet istud vacuum interministum ponat, non segregatum) necessario virtutem atomi ad distans introducit: neque enim, hac demptâ, aliquis motus (propter vacuum interpositum) excitari posset, sed omnia torperent et immobilia manerent. Quod autem ad juniorem illum Cupidinem attinet, merito ut minimus deorum natu traditur, cum non nisi species constitutas vigere potuisset. In illius autem descriptione allegoria ad mores deflectit et traducitur. Subest tamen quædam ejus cum illo naturæ conformitas. Venus enim generaliter affectum conjunctionis et procreationis excitat; Cupido ejus filius affectum ad individuum applicat. Itaque a Venere est generalis dispositio, a Cupidine magis exacta sympathia: atque illa a causis magis propinquis pendet; hæc autem a principiis magis altis et fatalibus, et tanquam ab antiquo illo Cupidine, a quo omnis exquisita sympathia pendet.

XVIII. DIOMEDES, SIVE ZELUS.

Diomedes cum magna et eximia gloria floreret et Palladi percarus esset, exstimulatus ab ea est, (et ipse promptior quam oportebat,) ut si forte Veneri in pugna occurreret, illi neutiquam parceret; quod et ille audacter exsecutus est, et Veneris dextram vulneravit. Hoc finitimus ille ad tempus impune tulit, et rebus gestis clarus et inclytus in patriam rediit; ubi domestica mala expertus, ad exteros in Italiam profugit. Ibi quoque initia satis prospera habuit, et regia Dauni hospitio, et donis cultus et ornatus est, et nuptiæ illi structuæ per eam regionem exstructæ. Sed sub primam calamitatem, quæ populum, ad quem diverterat, afflixit, statim subiit Daunum cogitatio, se intra penates suos duxisse hominem impium, et diis invisum, et theomachum, qui deam, quam vel tangere religio erat, ferro invaserat et violaverat. Itaque ut patriam suam piaculo obstrictam liberaret, nihil hospitii jura reveritus, cum ei jus religionis videretur antiquius, Diomedem subito obtruncat; statuas et honores ejus prosterni et aboleri jubet. Neque hujusmodi gravem casum vel miserari tutum erat; sed et ipsi comites ejus, cum mortem ducis sui lugerent, et questibus omnia implerent, in aves quasdam ex genere olorum mutati sunt, qui et ipsi sub mortem suam quiddam dulce et lugubre sonant.

Habet hæc fabula subjectum rarum et fere singulare. Neque enim memoriæ proditum est in aliqua alia fabula, heroëm ullum præter unum Diomedem ferro violasse aliquem ex diis. Atque certe videtur fabula imaginem in illo depinxisse hominis et fortunæ ejus, qui ex professo hunc finem actionum suarum sibi proponit et destinat, ut cultum aliquem divinum, sive sectam religionis, licet vanam et levem, vi et ferro insectetur et debellet. Quanquam enim cruenta religionis dissidia veteribus incognita essent, (cum dii ethnici zelotypia, quod est Dei veri attributum, non tangerentur,) tamen tanta et tam lata videtur fuisse prisci seculi sapientia, ut quæ experiundo non nossent, tamen meditatione et simulacris comprehenderent. Qui itaque sectam aliquam religionis, licet vanam et corruptam, et infamem, (id quod sub persona Veneris significatur,) non vi rationis et doctrinæ, et sanctitate vitæ, atque exemplorum et auctoritatum pondere, corrigere et convincere; sed ferro et flammis, et pœnarum acerbitate exscindere, et exterminare nituntur: incenduntur fortasse ad hoc ipsum a Pallade; id est, prudentia quadam acri et judicii severitate, quarum vigore et efficacia hujusmodi errorum fallacias et commenta penitus introspiciunt: et ab odio pravitatis et zelo bono; et ad tempus fere magnam gloriam adipiscuntur, atque a vulgo, (cui nihil moderatum, gratum esse potest,) ut unici veritatis et religionis viadices, (cum cæteri tepidi videantur et meticulosi,) celebrantur et fere adorantur. Attamen hæc gloria et felicitas raro ad exitum durat: sed omnis fere violentia, nisi morte celeri vicissitudines rerum effugiat, sub finem improspera est. Quod si eveniat ut rerum commutatio fiat, et secta illa proscripta et depressa vires acquirat et insurgat, tum vero hujusmodi homines zeli et contentiones damnantur, et nomen ipsum odio est, et omnes honores eorum in opprobrium desinunt. Quod autem ab hospite interfectus est Diomedes; id eo spectat, quod religionis dissidium, etiam inter conjunctissimos, insidias et proditiones excitet. Illud vero de luctu ipso, et querimoniis minime tolerandis, sed supplicio affectis, hujusmodi est, ut moneat, in omni fere scelere miserationi hominum locum esse, ut etiam qui crimina oderunt, personas tamen et calamitates reorum, humanitatis causa, commiserentur; extremum autem malorum esse, si misericordiæ commercia interdicantur. Atque tamen in causa religionis et impietatis, etiam miserationes hominum notari et suspectas esse. Contra vero comitum Diomedis, id est, hominum, qui ejusdem sunt sectæ et opinionis, querimoniæ et deplorationes argutæ admodum et canoræ esse solent, instar olorum, aut cygnum Diomedis; in quo etiam illa para allegoriæ nobilis est et insignis; eorum, qui propter causam religionis supplicia subeunt, voces sub tempus mortis, tanquam

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cyeneas cantiones, animos hominum mirum in modum flectere, et in memoriis et sensibus eorum diutissime inhærere et permanere.

XIX. DÆDALUS, SIVE MECHANICUS.

Sapientiam atque industriam mechanicam, atque in illa artificia illicita, et ad pravos usus detorta, antiqui adumbraverunt sub persona Dædali, viri ingeniosissimi, sed exœrabilis: hic ob condiscipulum et æmulum occisum exulaverat, gratus tamen in exilio regibus et civitatibus erat, atque multa quidem et egregia opera tam in honorem deorum, quam ad exornationem et magnificentiam urbium et locorum publicorum exstruxerat et effinxerat; sed tamen nomen ejus maxime celebratur ob illicita. Fabricam enim libidini Pasiphaës subministravit, ut cum Tauro misceretur; adeo ut ab hujus viri scelerata industria et ingenio pernicioso monstrum illud Minotaurus, pubem ingenuam devorans, ortum traxerit infelicem ac infamem. Atque ille malum malo tegens et cumulans, ad securitatem hujus pestis labyrinthum excogitavit et exstruxit: opus fine et detestatione nefarium, artificio insigne et præclarum: ne postea rursus, ne malis artibus tantum innotesceret; atque ut scelerum remedia (non solum instrumenta) ab eodem peterentur; etiam consilii ingeniosi auctor erat de filo, per quod errores labyrinthi retexerentur. Hunc Dædalum Minos magna cum severitate atque diligentia et inquisitione perseeutus est; ille tamen semper et perfugia et effugia reperiebat. Postremo eum volandi peritiam filium Icarum edocuisset, ille novitius, et artem ostentans, a cœlo in aquam decidit.

Parabola videtur esse ejusmodi. In ipso introitu ejus ea, quæ apud excellentes artifices excubat, et miris modis dominatur, invidia notatur; nullum enim genus hominum ex invidia, eaque acerba, et tanquam interneciva, magis laborat. Accedit nota de genere pœnæ inflicto minus politice et provide: ut Dædalus exulet. Etenim opifices præclari id habent, ut apud omnes fere populos sint acceptissimi: adeo ut exilium præstanti artifici vix supplicii loco sit. Nam aliæ vitæ conditiones et genera extra patriam non facile florere possunt. Artificum autem admiratio propagatur et augetur apud exteros et perigrinos, cum insitum animis hominum sit illud, ut populares suos, quod opificia mechanica, in minori pretio habeant. De usu autem artium mechanicarum, quæ sequuntur, manifesta sunt; multum enim illis debet vita humana, eum plurima et ad religionis apparatum, et ad civilium decus, et ad universæ vitæ culturam, ex illarum thesauris collata sint: veruntamen ex eodem fonte emanant instrumenta libidinis, atque etiam instrumenta mortis. Missa enim arte lenonum, venena quæsitissima, atque tormenta bellica, atque hujusmodi pestes, (quæ mechanicis inventis debentur,) probe novimus, quantum Minotaurum ipsum sæviția et pernicie superarint. Pulcherrima autem allegoria est de labyrintho, qua natura generalis mechanicæ adumbratur. Omnia enim mechanica, quæ magis sunt ingeniosa et accurata, instar labyrinthi censeri possint; propter subtilitatem, et variam implicationem, et obviam similitudinem, quæ vix ullo judicio, sed tantum experientiæ filo regi et discriminari possunt. Nec minus apte adjicitur, quod idem ille, qui labyrinthi errores invenit, etiam fili commoditatem monstravit; sunt enim artes mechanicæ, veluti usus ambigui, atque faciunt et ad nocumentum, et ad remedium, et fere virtus earum seipsam solvit et retexit. Artificia autem illicita, atque adeo artes ipsas sæpius persequitur Minos; hoc est, leges, quæ illas damnant et earum usum populis interdicunt. Nihilominus illæ occultantur et retinentur, et ubique et latebras et receptum habent; quod et bene notatum est in re non multum dissimili a Tacito suis temporibus, de mathematicis et genethliacis, " genus" (inquit) " hominum, quod in civitate nostra semper et retinebitur et vetabitur." Et tamen artes illicitæ et curiosæ cujusennque generis traetu temporis, eum fere quæ polliceantur non præstant, (tanquam leari de cœlo,) de existimatione sua decidunt et in contemptum veniunt, et nimia ipsa ostentatione pereunt. Et certe si verum omnino dicendum est, non tam feliciter legum frænis coërcentur, quam coarguuntur ex vanitate propria.

XX. ERICTHONIUS, SIVE IMPOSTURA.

Fabulantur poëtæ Vulcanum pudicitiam Minervæ solicitasse, atque subinde cupidine incensum, vim adhibuisse, atque in ipsa lueta semen in terram effudisse, ex quo Erielithonium natum esse, qui (partes superiores) decora et grata erat corporis eompage, femora autem et tibiæ suberant in anguillæ similitudinem, exilia et deformia: cujus deformitatis eum ipse sibi conscius esset, eum primum eurruum usum invenisse, ut quod in corpore magnificum erat, ostentaret, probrum autem tegeret.

Hujus fabulæ miræ et prodigiosæ ea sententia esse videtur: artem, quæ sub persona Vuleani ob multiplicem ignis usum repræsentatur, quoties per corporum omnimodas vexationes, naturæ vim facere, eamque vincere ac subigere contendat, (natura autem sub persona Minervæ, ob operum solertiam adumbratur,) ad votum et finem destinatum raro pertingere; sed tamen multa machinatione et molitione (tanquam lueta) intercidere atque emitti generationes imperfectas, et opera quædam manca, aspectu speciosa, usu infirma et claudicantia; quæ tamen impostores multo et fallaci apparatu ostentant, et veluti triumphantes circumducunt. Qualia fere et inter productiones chemicas, et inter subtilitates et novitates mechanicas sæpius notare licet; præsertim eum homines potius propositum urgentes, quam ab erroribus suis se recipientes, eum natura colluctentur magis quam debito obsequio et cultu ejus amplexus petant.

XXI. DEUCALION, SIVE RESTITUTIO.

Narrant poëtæ, exstinctis prorsus prisci orbis incolis per diluvium universale, eum soli restarent Deucalion et Pyrrha, qui ardebant desiderio pio et inclyto instaurandi generis humani, eos hujusmodi oraculum exeepisse: voti compotes futuros, si ossa matris acciperent et post se jacerent: quod illis primo magnam tristitiam et desperationem incussit: eum, æquata rerum facie per diluvium, sepulchri perserutatio omnino res sine exitu esset: sed tandem

intellexerunt lapides terræ (cum tellus omnium mater habeatur) ab oraculo significari.

Fabula areanum naturæ recludere videtur, et errorem animo humano familiarem corrigere; hominis enim imperitia judicat rerum renovationes sive instaurationes, ex earundem putredine et reliquiis (ut Phœnicem ex cinere propria) suscitari posse, quod nullo modo convenit, cum hujusmodi materiæ spatia sua confecerint, et ad initia ipsarum rerum prorsus ineptæ sint. Itaque retrocedendum ad principia magis communia.

XXII. NEMESIS, SIVE VICES RERUM.

Nemesis traditur fuisse dea, omnibus veneranda, potentibus et fortunatis etiam metuenda. Ea Noctis et Oceani filia fuisse perhibetur. Effigies autem ejus describitur talis. Alata erat, etiam coronata; in manibus autem gestabat dextra hastam e fraxino, sinistra phialam, in qua inclusi erant Æthiopes: insidebat autem cervo.

Parabola ejusmodi esse videtur; nomen ipsum Nemesis vindictam, sive retributionem satis aperte significat: hujus enim deæ officium, et administratio in hoc sita erat, ut beatorum constanti et perpetuæ felicitati, instar tribuni plebis, intercederet, ac illud suum *Veto* interponeret: neque solum insolentiam castigaret, verum etiam rebus prosperis, licet innocentibus et moderatis, rerum adversarum vices rependeret; ac si neminem humanæ sortis ad convivia deorum admitti mos esset, nisi ad ludibrium: equidem cum illud capitulum apud C. Plinium perlego, in quo ille infortunia et miserias Augusti Cæsaris collegit, quem omnium hominum fortunatissimum existimabam, quique artem etiam quandam utendi et fruendi fortuna habebat, ac cujus in animo nil tumidum, nil leve, nil molle, nil confusum, nil melancholicum, annotare licet, (ut ille etiam sponte mori aliquando destinasset,) hanc deam magnam et præputentem esse judicavi, ad cujus aram talis victima tracta esset. Parentes hujus deæ fuere Oceanus et Nox; hoc est, rerum vicissitudo, et judicium divinum obscurum et secretum; etenim vices rerum per oceanum apte repræsentantur, ob perpetuum fluxum et refluxum: occulta autem providentia, per noctem rite proponitur. Nam etiam apud ethnicos nocturna illa Nemesis, cum scilicet judicium humanum a divino discors esset, in observatione erat.

> "—Cadit et Ripheus, justissimis unus
> Qui fuit ex Teucris, et servantissimus æqui.
> Diis aliter visum."
>
> Æn. ii. 427.

Alata autem describitur Nemesis, ob subitas rerum conversiones, nec ante prævisas; nam in omni rerum memoria illud fere usuvenit, ut homines magni et prudentes per ea diserimina perierint, quæ maxime contempserint. Certe, cum M. Cicero, a Decimo Bruto, de Octavii Cæsaris minus sincera fide et animo exulcerato monitus esset; illud tantum rescripsit: "Te autem, mi Brute, sieut debeo, amo, quod istud, quicquid est, nugarum me scire voluisti." Etiam corona Nemesis insigniter, ob naturam vulgi invidam et malignam: quando enim fortunati et potentes ruunt, tum fere vulgus exultat, et Nemesin coronat. Hasta autem in dextra ad eos pertinet, quos Nemesis actu percutit et transfigit. Quos autem calamitate et infortunio non maetat, illis tamen spectrum illud atrum et infaustum in sinistra ostentat: observantur enim proculdubio mortalibus, etiam in summo fastigio felicitatis positis, mors, et morbi, et infortunio, et amicorum perfidiæ, et inimicorum insidiæ, et rerum mutationes, et hujusmodi; veluti Æthiopes illi in phiala: certe Virgilius, cum prælium Actiacum deseribit, de Cleopatra illud eleganter subjungit:

> "Regina in mediis, patrio vocat agmina sistro;
> Necdum etiam geminos a tergo respicit angues."
>
> Æn. viii. 696.

Verum non multo post, quocunque se illa verteret, tota agmina Æthiopum obversabantur. Ad extremum prudentur additur, Nemesin cervo insidere, quia vivax admodum animal est cervus; atque fieri fortasse potest, ut qui juvenis fato ereptus sit, Nemesin prævertat et effugiat; cui autem diuturna obvenit felicitas et potentia, is proculdubio Nemesi subjicitur, ac veluti substernitur.

XXIII. ACHELOUS, SIVE PRÆLIUM.

Narrant antiqui, cum Hercules et Achelous de nuptiis Dejaniræ contenderent, rem ad certamen deduetam esse. Achelous autem, cum varias et multiplices formas tentasset, (nam hoc ei facere licebat,) tandem Hercuii sub forma tauri torvi et frementis occurrit, et ad pugnam separavit: Hercules vero, solitam retinens figuram humanam, in eum impetum feeit; res cominus gesta est: eventus autem talis fuit, ut Hercules alterum ex cornibus tauro fregerit: ille majorem in modum dolens et perterritus, ut cornu illud suum redimeret, permutatione facta, cornu Amaltheæ sive copiæ Herculi largitus est.

Fabula ad belli expeditiones pertinet; apparatus enim belli ex parte defensiva (qui per Acheloum proponitur) varius admodum et multiformis est. Nam invadentis species unica est et simplex, eum ex exercitu solo aut classe fortasse constet: regio autem, quæ in solo proprio hostem expectat, infinita molitur, oppida munit, diruit, plebem ex agris et villis in urbes et castella cogit, pontes exstruit, prosternit, copias et commeatus comparat, distribuit, in fluviis, portibus, collium faucibus, sylvis, et aliis rebus innumeris occupata est, ut novas rerum facies quotidie induat et experiatur; ac tandem eum abunde munita et instructa fuerit, tauri pugnacis formam et minas ad vivum repræsentet. Ille autem qui invadit, prælium captat, et in hoc maxime incumbit, inopiam in terra hostili meteuns: quod si fiat ut, prælio commisso, acie victor sit, et tanquam cornu hosti frangat; tum proculdubio illud assequitur, ut hostis trepidus et existimatione diminutus, ut se explieet, et vires suas reparet, in munitiora se recipiat; atque urbes et regiones victori ad populandum et diripiendum relinquat; quod vere instar cornu illius Amaltheæ eeuseri possit.

XXIV. DIONYSUS, SIVE CUPIDITAS.

Narrant * Semelen Jovis pellicem, postquam

* Fabula hæc invenitur, in libro secundo "De Augmentis Scientiarum," aucta et locupletata.

juramento eum inviolabili ad votum indefiuitum obstrinxisset; petiisse ut ad amplexus suos accederet talis, qualis eum Junone consuesset: itaque illa ex conflagratione periit. Infans autem quem in utero gestabat, a patre exceptus, in femur ejus insutus est, donec menses fœtni destinatos compleret; ex quo tamen onere Jupiter nonnihil elaudicabat: itaque puer, quod Jovem, dum in femore ejus portaretur, gravaret et pungeret, Dionysi nomen accepit. Postquam autem editus esset, apud Proserpinam per aliquot annos nutritus est; eum vero adultus esset, ore fere muliebri conspiciebatur, ut sexus videretur tanquam ambigui: etiam exstinctus et sepultus erat ad tempus, et non ita multo post revixit. Atque prima juventa vitis culturam, atque adeo vini confectionem et usum primus invenit et edocuit; ex quo celebris factus et inclytus, orbem terrarum subjugavit et ad ultimos Indorum terminos perrexit: curru autem vehebatur a tigribus tractu: circa eum subsultabant dæmones deformes, Cobali vocati, Aeratus, et alii; quin et Musæ comitatui ejus se addebant. Uxorem autem sibi sumpsit Ariadnen a Theseo desertam et relictam. Arbor ei sacra erat hedera. Etiam sacrorum et ceremoniarum inventor et institutor habebatur, ejus tamen generis quæ et fanaticæ erant et plenæ corruptelarum, atque insuper crudeles. Furores quoque immittendi potestatem habebat. Certe in orgiis ejus a mulieribus furore pereitis duo viri insignes discerpti narrantur, Pentheus et Orpheus; ille dum, arbore conscensa, spectator eorum quæ agerentur esse voluisset; hic cum lyram pulsaret. Atque hujus Dei res gestæ cum Jovis rebus fere confunduntur.

Fabula videtur ad mores pertinere, ut nihil in philosophia morali melius inveniatur. Describitur autem sub persona Bacchi natura cupiditatis, sive affectus et perturbationis. Mater enim cupiditatis omnis, licet nocentissimæ, non alia est, quam appetitus et desiderium boni apparentis: concipitur vero semper cupiditas in voto illicito prius temere concesso, quam intellecto et judicato. Postquam autem affectus effervescere cœperit, mater ejus (natura scilicet boni) ex nimio incendio destruitur et perit: cupiditas autem, dum immatura est in anima humana (quæ ejus genitor est, et per Jovem repræsentatur) et nutricatur et occultatur, præcipue in animæ parte inferiore tanquam femore; atque animum pungit et convellit et deprimit; adeo ut decreta et actiones ex ea impediantur et claudicent. Atque etiam postquam consensu et habitu confirmata est, et in actus erumpit, tamen apud Proserpinam ad tempus educatur; id est, latebras quærit, atque clandestina est et quasi subterranea, donec, remotis pudoris et metus frænis, et coalita audacia, aut virtutis alicujus prætextum sumit, aut infamiam ipsam contemnit. Atque illud verissimum est, omnem affectum vehementiorem tanquam ambigui sexus esse. Habet enim impetum virilem, impotentiam autem muliebrem. Etiam illud præclare, Bacchum mortuum reviviscere. Videntur enim affectus quandoque sopiti atque extineti, sed nulla fides habenda est eis, ne sepultis quidem; siquidem præbita materia et occasione resurgunt.

Atque de inventione vitis parabola prudens est: omnis enim affectus ingeniosus est et sagax ad investigandum fomites suos; ante omnia autem, quæ hominibus innotuere, vinum ad perturbationes cujuscunque generis excitandas et inflammandas potentissimum est et maxime efficax; atque est eis instar fomitis communis. Elegantissime autem ponitur affectus provinciarum subjugator, et expeditionis infinitæ susceptor. Nunquam enim partis acquiesceit, sed appetitu infinito neque satiabili ad ulteriora tendit et novis inhiat. Etiam tigres apud affectus stabulant et ad curum jugantur; postquam enim affectus aliquis curulis esse cœpit, non pedestris, et victor rationis et triumphator, in omnia, quæ adversantur aut se opponunt, crudelis est et indomitus et immitis. Faetum autem est, quod circa curum subsultant illi dæmones ridiculi. Omnis enim affectus progignit motus in oculis, et ore ipso et gestu, indecoros et ineonditos, subsultorios et deformes, adeo ut qui sibi in aliquo affectu, veluti ira, insultatione, amore, videatur magnificus et tumidus, aliis tamen sit turpis et ridiculus. Conspiciuntur etiam in affectus comitatu Musæ. Neque enim reperitur ullus fere affectus, cui non blandiatur aliqua doctrina. Hae enim in re ingeniorum indulgentia Musarum majestatem minuit, ut, eum duces vitæ esse debeant, sint affectuum pedissequæ.

Atque imprimis nobilis est illa allegoria, Bacchum amores suos in eam effudisse, quæ ab alio relicta erat. Certissimum enim est, affectum id petere et ambire, quod experientia repudiavit. Atque norint omnes, qui, affectibus suis servientes et indulgentes, pretium potiundi in immensum augent, sive honores appetant, sive fortunas, sive amores, sive gloriam, sive scientiam, sive alia quæcunque, se res relictas petere, et a compluribus per omnia fere seeula post experimentum dimissas et fastiditas. Neque mysterio caret, quod hedera Baccho sacra fuerit. Hoc enim dupliei modo convenit. Primum, quod hedera hieme virescat; deinde, quod circa tot res, arbores, parietes, ædificia serpat, ac circumfundatur, ac se attollat. Quod ad primum enim attinet, omnis affectus, per renitentiam et vetitum, et tanquam antiperistasin, (veluti per frigus brumæ hedera,) vireseit et vigorem aequirit. Secundo affectus prædominans omnes humanas actiones, et omnia humana decreta, tanquam hedera, circumfunditur, atque iis se addit et adjungit et immiscet. Neque mirum est si superstitiosi ritus Baccho attribuantur, cum omnis fere malesanus affectus in pravis religionibus luxurietur: aut si furores ab eo immitti putentur; cum omnia affectus et ipse furor brevis sit, et, si vehementius obsideat et incumbat, in insania terminetur. Illud autem de Pentheo et Orpheo laceratis evidentem habet parabolam; eum affectus prævalidus, et inquisitioni curiosæ et admonitioni salutari et liberæ asperrimus atque infensissimus sit. Postremo illa confusio personarum Jovis et Bacchi ad parabolam recte traduci potest; quandoquidem res gestæ nobiles et claræ, et merita insignia et gloriosa, interdum a virtute et recta ratione et magnanimitate, interdum a latente affectu, et occulta cupiditate (utcunque famæ et laudis celebritate efferantur) proveniant: ut non facile sit distinguere facta Bacchi a factis Jovis.

XXV. ATALANTA, SIVE LUCRUM.

Atalanta cum velocitate excellcret, de victoria cursus cum Hippomene certamen iniit. Conditiones certaminis erant; victori Hippomeni conjugium Atalantæ, mors victo. Neque dubia victoria videbatur, cum Atalantæ insuperabilis in cursu præstantia multorum exitio insignita fuisset. Itaque Hippomenes ad dolos animum adjecit. Paravit autem tria mala aurea, eaque secum portavit. Res geri cœpit; præcurrit Atalanta; ille, cum se a tergo relictum cerneret, artis non immemor, ex malis aureis unum ante conspectum Atalantæ projecit; non recta quidem, sed ex transverso, ut illam et moraretur, atque insuper de via deduceret; illa, cupiditate muliebri, et mali pulchritudine illecta, omisso stadio, post malum cucurrit, et ad illud tollendum se submisit. Hippomenes interim spatium stadii non parvum confecit, eamque post se reliquit. Illa tamen rursus naturali pernicitate jacturam temporis resarcivit, atque iterum emicuit: sed cum Hippomenes secundo et tertio hujusmodi moras ei injecisset, tandem victor astutia, non virtute evasit.

Fabula videtur allegoriam insignem proponere de certamine artis cum natura. Ars enim, per Atalantam significata, virtute propria, si nihil obstet et impediat, longe natura velocior est, et veluti cursus citatioris; et celerius ad metam pervenit. Hoc enim in omnibus fere effectis patet; cernas fructus ex nucleis tarde, ex insitione celeriter provenire; cernas lutum in generatione lapidum tarde, in torrefactione laterum cito durescere: etiam in moralibus, dolorum oblivionem et solatia diuturnitas temporis, quasi ex beneficio naturæ, inducit; philosophia autem (quæ veluti ars vivendi est) diem non exspectat, sed præstat et repræsentat. Verum istam artis prærogativam et vigorem, infinito rerum humanarum detrimento, mala aurea retardant. Neque reperitur ex scientiis aut artibus aliqua, quæ cursum suum verum et legitimum ad finem suum, tanquam ad metam constanter prodnxerit; sed perpetuo artes incepta præcidunt, et stadium deserunt, et ad lucrum et commodum declinant, instar Atalantæ.

"Declinat cursus, aurumque volubile tollit."

Itaque mirum minime est, si arti non datum sit naturam vincere, et victam ex pacto illo et lege certaminis perimere aut destruere; sed contrarium eveniat, ut ars in naturæ potestate sit, atque veluti nupta mulier conjugi parcat.

XXVI. PROMETHEUS, SIVE STATUS HOMINIS.

Traduxt antiqui hominem fuisse opus Promethei, atque ex luto factum, nisi quod Prometheus particulas ex diversis animalibus massæ admiscuerit. Ille autem cum opus suum beneficio suo tueri vellet, neque conditor solum generis humani videri, verum etiam amplificator, ad cœlum ascendit furtim, fasces secum portans ex ferula, quibus ad currum solis admodis et accensis, ignem ad terram detulit, atque cum hominibus communicavit. Ob tantum Promethei meritum memorant homines parum gratos fuisse. Quinetiam, conspiratione facta, et Prometheum et inventum ejus apud Jovem accusarunt. Ea res non perinde accepta, atque æquum videri possit. Nam ipsa accusatio Jovi et superis admodum cordi fuit. Itaque delectati non solum ignis usum hominibus indulserunt, verum et novum munus, omnium maxime amabile et optabile (perpetuam nimirum juventam) hominibus donarunt: illi, gestientes et inepti, donum deorum asello imposuerunt. Inter redeundum autem laborabat asellus siti gravi et vehementi; cumque ad fontem quendam pervenisset, serpens fonti custos additus, eum a potu prohibuit, nisi illud, quodcunque esset, quod in dorso portaret, paciscl vellet: asellus miser conditionem accepit, atque hoc modo instauratio juventutis, in pretium haustus pusillæ aquæ, ab hominibus ad serpentes transmissa est. Verum Prometheus, a malitia sua non abscedens, atque hominibus, post præmium illud eorum frustratum, reconciliatus, animo vero erga Jovem exulcerato, dolos etiam ad sacrificium adhibere veritus non est. Atque duos aliquando tauros Jovi dicitur immolasse, ita tamen ut in alterius pelle carnes et adipem amborum incluserit, alteram pellem ossibus tantummodo suffarcinarit; atque deinde religiosus scilicet et benignus Jovi optionem concessit. Jupiter, vafritiem et malam fidem ejus detestatus, sed nactus occasionem ultionis, ludibrium illud tauri elegit, atque ad vindictam conversus, cum sc insolentiam Promethei reprimere non posse animadverteret, nisi hominum genus (quo opere ille immensum turgebat et efferebatur) afflixisset, Vulcano imperavit, ut fœminam componeret pulchram et venustam, cui etiam dii singuli dotes suas impertierunt, quæ idcirco Pandora vocata est. Huic fœminæ inter manus vasculum elegans posnerunt, in quo omnia mala et ærumnas incluserant; subsidebat autem in imo vase Spes. Illa cum vasculo suo ad Prometheum primo se contulit; eum captans, si forte ille vas accipere vellet et aperire: quod ille cautus et astutus rejecit. Itaque ad Epimetheum Promethei fratrem (sed diversæ admodum indolis) spreta deflexit. Ille, nihil cunctatus, vas temere aperuit; cumque mala illa omnigena evolare cernret, sero sapiens, magna contentione et festinatione vasi operculum sunm rursus indere conatus est, vix tamen ultimam et in fundo residentem Spem servare potuit. Postremo Prometheo Jupiter plurima et gravia imputans, quod ignis olim furtum fecisset, quod Jovis majestatem in sacrificio illo doloso ludibrio habuisset; quod donum ejus aspernatus esset, novo etiam addito crimine, quod Palladem vitiare tentasset, cum in vincula conjecit, et ad perpetuos cruciatus damnavit. Erat enim jussu Jovis adductus ad montem Caucasum, atque ibi columnæ alligatus, ut nullo pacto se movere posset: aderat autem aquila, quæ jecur ejus interdiu rostro tundebat atque consumebat, noctu autem quantum comesum erat, renascebatur; ut nunquam doloris materia deficeret. Memorant tamen hoc supplicium aliquando finem habuisse: Hercules enim in poculo, quod a sole acceperat, navigato oceano, ad Caucasum pervenit, atque Prometheum liberavit, aquila sagittis confixa. Instituta autem sunt, in honorem Promethei, apud nonnullos populos, lampadiferorum certamina, in quibus decurrentes accensas faces ferebant, quas si exstingui contigisset, victoriam sequentibus cedebant et se subdu-

cebant, atque is demum palmam accepit, qui primus facem accensam ad metam usque detulisset.

Fabula contemplationes plurimas veras atque graves, et præ se fert, et premit. Nonnulla enim in ea jampridem recte notata, alia plane intacta sunt. Prometheus providentiam liquido et diserte significat: atque in rerum universitate sola desumpta et delecta est ab antiquis hominis fabrica et constitutio, quæ providentiæ attribuatur tanquam opus proprium. Hujus rei non solum illud in causa esse videtur, quod hominis natura mentem suscipit, atque intellectum providentiæ sedem; atque durum quodammodo videtur et incredibile ex principiis brutis et surdis excitare, et educere rationem et mentem, ut fere necessario concludatur providentia animæ humanæ indita esse, non sine exemplari, et intentione, et auctoramento providentiæ majoris: verum et hoc præcipue proponitur, quod homo veluti centrum mundi sit, quatenus ad causas finales; adeo ut, sublato e rebus homine, reliqua vagari sine proposito videantur et fluctuari, atque, quod aiunt, scopæ dissolutæ esse, nec finem petere. Omnia enim subserviunt homini, isque usum et fructum ex singulis elicit et capit. Etenim astrorum conversiones, et periodi, et ad distinctiones temporum, et ad plagarum mundi distributionem faciunt. Et meteora ad præsagia tempestatum, et venti tum ad navigandum, tum ad molas, et machinas: et plantæ atque animalia cujuscunque generis, aut ad domicilia hominis et latebras, aut ad vestes, aut ad victum, aut ad medicinam, aut ad levandos labores, aut denique ad delectationem et solatium referuntur: adeo ut omnia prorsus non suam rem agere videantur, sed hominis. Neque temere additum est, in massa illa et plasmate particulas ex diversis animantibus desumptas, atque cum luto illo temperatas et confusas fuisse; quia verissimum est, omnium rerum, quas universum complectitur, hominem rem maxime compositam esse et decompositam, ut non immerito ab antiquis mundus minor vocatus sit. Quamvis enim verbi microcosmi elegantiam chemici nimis putide et ad literam acceperint et detorserint, dum in homine omnem mineram, omne vegetabile, et reliqua, aut aliquid eis proportionatum, subesse volunt; manet tamen illud solidum et sanum quod diximus, corpus hominis omnium entium et maxime mixtum, et maxime organicum reperiri, quo magis admirandas virtutes et facultates suscipit, et nanciscitur: simplicium enim corporum vires paucæ sunt, licet certæ et rapidæ, quia minime per misturam refractæ, et comminutæ, et libratæ existunt: virtutis autem copia et excellentia in mistura et compositione habitat. Atque nihilominus homo in originibus suis videtur esse res inermis et nuda, et tarda in juvamentum sui, denique quæ plurimis rebus indigeat. Itaque festinavit Prometheus ad inventionem ignis, qui omnibus fere humanis necessitatibus et usibus suppeditat et ministrat levamenta et auxilia: ut si forma formarum anima, si instrumentum instrumentorum manus, etiam auxilium auxiliorum sive opis opum ignis dici mereatur. Hinc enim operationes quamplurimæ; hinc artes mechanicæ; hinc scientiæ ipsæ infinitis modis adjuvantur. Modus autem furti ignis apte describitur, atque ex natura rei. Is fuisse perhibetur per virgam ex ferula ad currum solis admotam. Ferula enim ad percussionem et plagas adhibetur, ut luculenter significetur, ignis generationem per corporum violentas percussiones et collisiones fieri, ex quibus attenuantur materiæ, et in motu ponuntur, et ad calorem cœlestium suscipiendum præparantur, ignemque, veluti ex curru solis, modis clandestinis, ac quasi furtim decerpant et rapiunt. Sequitur parabolæ pars insignis. Homines, loco gratulationis et gratiarum actionis, ad indignationem et expostulationem versos esse, atque accusationem et Promethei et ignis apud Jovem instituisse; eamque rem Jovi acceptissimam fuisse, adeo ut hominum commoda ob hoc nova munificentia cumulaverit. Quorsum enim ista criminis ingrati erga auctorem suum animi (quod vitium omnia fere complectitur) approbatio et remuneratio? Res alio spectare videtur. Hoc enim vult allegoria; incusationem et naturæ suæ, et artis, per homines factam, ex optimo mentis statu proficisci, atque in bonum cedere; contrarium diis invisum et infaustum esse. Qui enim naturam humanam vel artes receptas in immensum extollunt, et effusi sunt in admirationem earum rerum, quas habent et possident, et scientias, quas profitentur aut colunt, perfectas prorsus censeri volunt, illi primo adversus divinam naturam minus reverentes sunt, cujus perfectioni sua fere æquiparant; deinde iidem ergа homines magis sunt infructuosi, cum se ad fastigium rerum jam pervenisse putent, et tanquam perfuncti ulteriora non quærant. Contra qui naturam et artes deferunt, et accusant, et querimoniarum pleni sunt, illi vere et magis modestum animi sensum retinent, et perpetuo ad novam industriam, et nova inventa exstimulantur. Quo mihi magis mirari libet hominum insciitam et malum genium, qui, paucorum arrogantiæ servuli, istam peripateticorum philosophiam, portionem Græcæ sapientiæ, nec eam maguam, in tanta veneratione habent, ut omnem ejus incusationem non solum inutilem, sed suspectam et fere periculosam redditerint. Atque magis probandus est et Empedocles, qui tanquam furens, et Democritus, qui magna cum verecundia, queruntur, omnia abstrusa esse, nihil nos scire, nil cernere, veritatem in profundis puteis immersam, veris falsa miris modis adjuncta atque intorta esse (nam academia nova modum prorsus excessit) quam Aristotelis schola fidens et pronuncia-trix. Itaque monendi sunt homines, delationem naturæ et artis diis cordi esse, et novas eleemosynas, et donaria a divina benignitate impetrare; et incusationem Promethei, licet auctoris et magistri, eamque acrem et vehementem, magis sanam et utilem, quam gratulationem effusam, esse; denique opinionem copiæ inter maximas causas inopiæ reponi. Quod vero attinet ad doni genus, quod homines in præmium accusationis dicuntur accepisse, (florem juventutis videlicet non deciduum,) ejusmodi est, ut videantur antiqui de modis et medicinis ad senectutis retardationem et vitæ prolongationem facientibus non desperasse; sed illa utique numerasse potius inter ea, quæ per hominum inertiam et incuriam, licet semel accepta, periere aut frustrata sunt; quam inter ea, quæ plane negata et nunquam concessa fuerint. Significant enim et innuunt, ex ignis vero

usu, ntque ex artis erroribus bene et strenue accusatis et convictis, munificentiam divinam ad hujusmodi dona hominibus non defuisse; ipsos sibi deesse, cum hoc deorum munus asello imposuerint lento et tardigrado; ea videtur esse experientia, res stupida et plena moræ, ex cujus gradu tardo et testudineo antiqua illa querimonia de vita brevi et arte longa nata est. Atque certe nos in ea sumus opinione, facultates illas duas, dogmaticam et empiricam, adhuc non bene conjunctas et copulatas fuisse, sed nova deorum munera aut philosophiis abstractis, tanquam levi volucri; aut lentæ et tardæ experientiæ, tanquam asello, imposita esse: in quo tamen de asello illo non male ominandum est, nisi interveniat illud accidens viæ et sitis. Existimamus enim, si quis experientiæ, veluti certa lege et methodo, constanter militet, neque inter viam experimenta, quæ vel ad luerum faciunt, vel ad ostentationem, hauriendi siti corripiatur, adeo ut ad ea comparanda onus suum deponat et distrahat; eum munificentiæ divinæ uuctæ et novæ bajulum non inutilem fore. Quod vero donum illud ad serpentes transierit, ea videtur adjectio ad fabulam ornatus fere gratia, nisi forte illud inseruerint, ut homines pudeat, se cum igne illo suo et tot artibus ea in se transferre non posse, quæ natura ipsa compluribus aliis animalibus largita est. Etiam illa subita hominum cum Prometheo reconciliatio, postquam spe sua decidissent, monitum habet utile et prudens: notat enim hominum levitatem et temeritatem in experimentis novis. Ea enim si statim non succedant et ad vota respondeant, præpropera festinatione homines incepta deserunt, et præcipites ad vetera recurrunt, iisque reconciliantur. Descripto statu hominis quoad artes et intellectualia, parabola transit ad religionem; culturam enim artium cultus divinorum comitatus est; quem statim hypocrisis occupavit et polluit. Itaque sub duplici illo sacrificio eleganter repræsentatur persono vere religiosi et hypocritæ. Alteri enim inest adeps, Dei nimirum portio, ob inflammationem et suffitum, per quod affectus et zelus, ad gloriam Dei incensus atque altu petens, significutur; insunt viscera charitatis, insunt carnes bonæ et utiles. In altero nihil præter ossa arida et nudu reperiuntur, quæ nihilominus pellem fareiunt, et hostium pulcherrimam, et magnificam imitantur; per quæ recte notuntur externi et inanes ritus, et cæremoniæ jejunæ, quibus homines cultum divinum onerant et inflant, res ad ostentationem potius compositæ, quam ad pietatem facientes. Neque satis est hominibus hujusmodi ludibria Deo offerre, nisi ea etiam illi imponant et imputent, ac si ipse illa elegerit et præscripserit. Certe propheta sub Dei persona de hac optione expostulat: "Num tandem hoc est illud jejunium, quod elegi, ut homo animam suam in diem unum affligat, et caput instar junci demittat?" Post statum religionis, parabola se vertit ad mores et humanæ vitæ conditiones. Atque pervulgatum est illud, et tamen recte positum, per Pandoram significari voluptatem et libidinem, quæ post vitæ civilis artes, et cultum, et luxum, veluti ex dono ignis, et ipsa incensa est. Itaque Vulcano, qui similiter ignem repræsentat, opificium voluptatis deputatur. Ab illa autem infinita mala et in animos, et in corpora, et fortunas hominum una cum sera pœnitentia fluxerunt; neque tantum in status singulorum, verum etiam in regnu et respublicas. Ab eodem enim fonte bella, et tumultus, et tyrannides ortum traxere. Verum operæ pretium est animadvertere, quum belle et eleganter fabula duas humanæ vitæ conditiones, et veluti tabulas sive exempla, sub personis Promethei et Epimethei depinxerit. Qui enim sectam Epimethei sequuntur, illi improvidi, neque in longum consulentes; quæ in præsentia suavia sunt, prima habent, atque multis sane propter hoc angustiis, et difficultatibus, et calamitatibus premuntur, et perpetuo fere cum illis conflictantur; interim tamen genium suum placant, atque insuper ob rerum imperitiam multas inanes spes intra animum volvunt, quibus tamen, veluti suavibus insomniis, se delectant, atque miserias vitæ suæ eondiunt. Promethei autem schola, homines nimirum prudentes, et in futurum prospicientes, multa scilicet mala et infortunio caute submovent et rejiciunt; verum eum hoc bono illud conjunctum est, ut multis voluptatibus et varia rerum jucunditate se privent, et genium soum fraudent, atque, quod multo pejus est, curis, et solicitudine, et timoribus intestinis se erucient et conficiant: alligati enim necessitatis columnæ, innumeris cogitationibus, (quæ, quia volucres admodum sunt, per aquilam significuntur,) iisque pungentibus, et jecur mordentibus, et corrodentibus vexantur; nisi forte aliquando, veluti noctu, exiguam quampium animi remissionem et quietem nanciscantur; ita tamen ut statim subinde redeant novæ anxietates et formidines. Itaque paucis admodum utriusque sortis beneficium contigit, ut providentiæ commodu retinuerint, solicitudinis et perturbationis malis se liberarint: neque id quisquam assequi potest, nisi per Herculem, id est, fortitudinem et animi constantiam, quæ in omnem eventum parata, et cuicunque sorti æqua, prospicit sine metu, fruitur sine fastidio, et tolerat sine impatientia. Atque illud notatu dignum est, virtutem hanc Prometheo non innatum, sed adventitiam fuisse, atque ex ope aliena: nulla enim ingenita et naturalis fortitudo tantæ rei par esse possit. Sed hæc virtus ab ultimo oceano, atque a sole accepta et advecta est: præstatur enim a sapientia, tanquam a sole, et a meditatione inconstantiæ ac veluti undarum humanæ vitæ, tanquam a navigatione oceani; quæ duo Virgilius bene conjunxit:

> "Felix, qui potuit rerum cognoscere causas,
> Quique metus omnes et inexorabile fatum
> Subjecit pedibus, strepitumque Acherontis avari"
> Georg. II. 490.

Elegantissime autem additur ad hominum animos consolandos et confirmandos, heroëm istum ingentem in poculo sive ureeo navigasse: ne forte naturæ suæ angustius et fragilitatem nimium pertimescant aut causenter; ac si hujusmodi fortitudinis et constantiæ capax omnino non esset; de quo ipso Seneca bene ominatus est, cum dicat, "Magnum est habere simul fragilitatem hominis, et securitatem Dei." Sed jam retrocedendum est ad illud, quod consulto præterivimus, ne ea, quæ inter se connexa sunt, abrumperemus: hoc est, de novissimo illo Promethei crimine, quod pudicitiam Minervæ solicitasset. Nam et ob hoc delictum gravissimum certe et maximum

illam pœnam lanintionis viscerum subiit. Illud non aliud esse videtur, quam quod homines, artibus et scientia multa inflati, etiam sapientiam divinam sensibus et rationi subjicere sæpius teoteot; ex quo certissime sequitur mentis laeeratio et stimulatio perpetua et irrequieta. Itaque mente sobria et submissa distinguenda sunt humana et divina; atque oracula sensus et fidei; nisi forte et religio hæretica, et philosophia commentitia hominibus cordi sit. Restat ultimum illud de ludis Promethei cum tædis ardentibus. Hoc rursus ad artes et scientias pertinet, sieut ignis ille, ad cujus memoriam et eelebrationem hujusmodi ludi iostituti sunt; atque eontinet in se monitum, idque prudentissimum, ut perfectio scientiarum n successione, non ab unius alieujus pernieitate aut facultate, exspectetur. Etenim qui ad cursum et eontentionem velocissimi et validissimi sunt, ii ad facem suam accensam servandam fortasse minus sunt habiles, eum n cursu rapido æque, ac nimis tardo, periculum extinetionis immineat. Isti autem luminum eursus et eertamina jampridem intermissa videntur, eum scientiæ in primis quibusque auctoribus, Aristotele, Galeoo, Euclide, Ptolemæo, maxime florere eernantur; atque successio nil magni effecerit aut fere tentaverit. Atque optandum esset, ut isti ludi in honorem Promethei sive humanæ naturæ instaurarentur, atque res eertamen et æmulationem et bonam fortunam reciperet, neque ex unius eujuspiam face tremula atque agitata penderet. Itaque homines monendi sunt, ut se ipsi exsuscitent, et vires atque etiam viees suas experiantur, neque in paueorum hominum aoimulis et eerebellis omnia ponant. Hæc sunt illa, quæ in fabula ista vulgari et decantata nobis adumbrari videntor; neque tamen inficiamur, illi subesse haud pauca, quæ nd Christianæ fidei mysterin miro consensu innuant; ante omnia navigatio illa Herculis in urceo ad liberandum Prometheum, imaginem Dei Verbi, in earne, tanquam fragili vasculo, ad redemptionem generis humaoi properantis, præ se ferre videtur. Verum nos omnem io hoc genere lieentiam oobis ipsi interdicimus, oe forte igne extraneo ad altare Domini utamur.

XXVII. ICARUS VOLANS; ITEM SCYLLA ET CHARYBDIS, SIVE VIA MEDIA.

Mediocritas, sive via media, in moralibus laudatissima est; in intellectualibus minus eelebrata, sed non minus utilis et boon; in politicis tantum suspecta, et cum judicio adhibenda. Morum autem mediocritates per viam Icaro præscriptam; iotellectualium autem per viam inter Scyllam et Charybdim, ob difficultatem et pericolum, decantatam ab antiquis notantur. Icaro præcepit pater, eum mare esset prætervolandum, ut viam aut nimis sublimem, aut nimis humilem eaveret. Cum enim alæ eera essent eonglutinatæ, periculum erat si altius effertur, ne cera ex solis ardore liquefieret; sin ad vaporem maris propios se submitteret, ne ab humore cera minus tenax efficeretur. Ille vero ausn juvenili in celsiora eontendit, atque in præceps lapsus est.

Parabola faeilis et vulgata est: virtutis enim via inter excessum et defeetum recto tramite aperitur. Neque mirum erat si Iearum, juvenili nlaeritate gestientem, excessus perdiderit. Excessus enim fere juvenum; defectus senum, vitia esse solent. Ex semitis tamen malis et noseivis elegit Icarus (si plane pereundum erat) meliorem. Defeetus enim recte æstimantur excessibus praviores. Quandoquidem excessui nonnihil magnanimitatis subsit, et cognationis cum cœlo, ad instar volueris: defectus vero humi serpat, instar reptilis. Præclare Heraclitus: "Lumen siceum, optima anima." Nam si ex humo humorem eontrahat anima, prorsus deprimitur et degenerat: interim tamen modus adhibendus est, ut nb illa siccitate laudata lumen reddata subtilius, non eorripiatur ineendium. Atque hæc euivis fere nota suot. At via illa in intellectualibus inter Scyllam et Charybdim eerte et peritiam navigandi et felicitatem desiderat. Si enim in Scyllam incidant naves, illiduntur eautibus: sin in Charybdim, absorbentur. Cujus parabolæ ea videtur esse vis, (quam nos breviter perstringemus, tametsi infinitam trahat eontemplationem,) ut in omni doctrioa et scientia, earumque regulis et axiomatibus, modus teneatur ioter distinctionum scopulos, et universalium voragines. Hæc enim duo naufragüs ingeniorum et artium famosa sunt.

XXVIII. SPHINX, SIVE SCIENTIA.

Traditua Sphinx fuisse monstrum specie multiforme; facie et voce virgiois; pennis volucris, unguibus gryphi: jugum autem montis in agro Thebano tenebat et vias obsidebnt: mos autem ei erat viatores ex insidiis invadere ac comprehendere: quibus in potestatem redactis, ænigmatn quædam obscura et perplexa proponebat, quæ a Musis præbita et accepta putabantur. Ea si solvere et interpretari miseri captivi non possent; hæsitantes, et confusos in illis, magna sævitia dilaniabat. Hæc calamitas cum diu grassaretur, præmium propositam est a Thebanis (ipsum Thebarum imperium) viro qui Sphingis ænigmata explicare possit (neque enim alia superandæ illius ratio erat). Tanto pretio excitntus Œdipus, vir aeer et prudens, sed pedibus læsis et perforatis, eonditionem accepit, et experiri statuit. Postquam autem fidens animi et alncer se eoram Sphinge stitisset; illa ab eo quæsivit, quale tandem illud animal esset, quod primo quadrupes natum, postea bipes factum esset, deinde tripes, ad extremum rursus quadrupes. Ille præsenti animo respondit, illud in hominem eompetere, qui sub ipsum partum et infantiam quadrupes provolvitur et vix repere tentat, nec ita multo post erectus et bipes incedit; in senectute autem baculo innititur et se sustentst, ut tanquam tripes videatur; extrema autem ætate decrepitus senex labantibus nervis, quadrupea decumbit, et lecto affigitur. Itaque vero responso victoriam adeptus, Sphingem interemit; cujus eorpus asello impositum, veluti in triumpho ducebator; ipse autem ex pactis rex Thebanorum creatus est.

Fabula elegans, nec minus prudens est; atque videtur eonficta de scientia, præsertim eonjuncta practicæ. Siquidem scientia non absurde monstrum dici possit, cum ignorantibus et imperitis prorsus admirationi sit. Figura autem et specie multiformis est, ob immensam varietatem subjecti, in qua scientia

versatur: vultus et vox affingitur muliebris ob gratiam et loquacitatem: adduntur alæ, quia scientiæ et earum inventa momento discurrant et volant, cum communicatio scientiæ sit instar luminis de lumine, quod affatim ineenditur. Elegantissime autem attribuuntur ungues aeuti et adunei; quia scientiæ axiomata et argumenta penetrant mentem, eamque prehendunt et tenent ut movere et elabi non possit: quod et sanctus philosophus notavit: "Verba sapientum" inquit, "sunt tanquam aculei, et veluti clavi in altum defixi." Omnis autem scientia collocata videtur in arduis et editis montium. Nam res sublimis merito putatur et exeelsa, et ignorantiam tanquam ex superiore loco despieiens, atque etiam late et undequaque speculatur et prospieit, ut in vertieibus montium fieri solet. Vias autem obsidere fingitur scientia, quia ubique in itinere isto, sive peregrinatione vitæ humanæ, materia et occasio eontemplationis se ingerit et occurrit. Proponit autem Sphinx quæstiones et ænigmata mortalibus varia et difficilia, quæ aecepit a Musis. Ea tamen quamdiu apud Musas manent, sævitia fortasse carent; donec enim nullus alius finis meditationis et disquisitionis sit præter ipsum scire, intellectus non premitur, nec in arcto ponitur, sed vagatur et exspatiatur, atque in ipsa dubitatione et varietate nonnullam jucunditatem et delectationem sentit: sed postquam a Musis hujusmodi ænigmata ad Sphingem transmissa sunt, id est, ad practicam, ut instet et urgeat actio, et electio, et decretum: tum demum ænigmata molesta et sæva esse ineipiunt, et, nisi solvantur et expediantur, animos hominum miris modis torquent et vexant, et in omnes partes distrahunt et plane laeerant. Proinde in ænigmatibus Sphingis duplex semper proponitur conditio; non solventi mentis laceratiu; solventi imperium. Qui enim rem callet, is fine suo potitur, atque omnis artifex operi suo imperat. Ænigmatum autem Sphingis duo in universum sunt genera: ænigmata de natura rerum, atque ænigmata de natura hominis; atque similiter in præmium solutionis sequuntur duo imperia: imperium in naturam, et imperium in homines; veræ enim philosophiæ naturalis finis proprius et ultimus est, imperium in res naturales, eorpora, medieiaas, mechanica, alia infinita; licet schola, oblatis eontenta, et sermonibus tumefacta, res et opera negligat et fere projiciat. Verum ænigma illud Œdipodi propositum, ex quo ille imperium Thebanum adeptus est, pertinebat ad naturam hominis: qaisquis enim naturam hominis prorsus introspexit, ille faber fere fortunæ suæ esse potest, et ad imperandum natus est. Id quod de Romanis artibus bene pronunciatum est:

> "Tu regere imperio populos, Romane, memento;
> Hæ tibi erunt artes."—
>
> Æn. vi. 851.

Itaqne apposite illud, quod Augustus Cæsar signo Sphingis, sive de industria, sive fortuito usus est. Ille enim (si quis unquam) in politica excelluit, et in vitæ suæ curriculo plurima nova ænigmata de natura hominis felicissime solvit, quæ nisi dexter et paratus solvisset, multoties non procul ab imminente pernicie et exitio abfuisset. Atque additur in fabula Sphingis devictæ corpus in asellum impositum fuisse. Elegantissime certe, eum nihil sit tam aeutum et abstrusum, quin postquam plane intellectum et deinceps pervulgatum sit, etiam tardo imponi possit. Neque illud prætermittendum, debellatam esse Sphingem a viro pedibus elavato: etenim nimis eito pede et celeri gradu ad ænigmata Sphingis hominea properare solent: unde fit, ut (prævalente Sphinge) potius per disputationes ingenia et animos laeerent, quam per upera et effeetus imperent.

XXIX. PROSERPINA, SIVE SPIRITUS.

Narrant Plutonem, postquam regnum inferorum ex partitione illa memorabili aceepisset, de nuptiis alicujus e superis desperasse, si eas per colloquia, aut modos suaves tentaret; ut ad raptnm consilia sua dirigere ei fuerit necesse. Itaque eaptata opportunitate Proserpinam Cereris filiam, virginem pulcherrimam, dum flores Nareissi in Sieiliæ pratis culligeret, subito incursu rapuit, atque quadrigis seeum ad subterranea asportavit; ei magna reverentia præbita est, ut et domina Ditis vocata sit. Ceres autem, ejus mater, eum filia sibi uniee dilecta nusquam comparuisset, supra modum mœsta et anxia, tædam accensam ipsa manu præ se ferens, universum orbis terrarum ambitum peragravit, ut filiam investigaret et recuperaret. Id eum frustra fuisset, accepto forte indicio quod ad inferos devecta esset, multis lachrymis et lamentationibus Jovem fatigavit, ut illa ei restitueretur. Atque tandem pervicit, ut si illa nihil ex iis, quæ apud inferos essent, degustasset, tum eam abducere liceret. Ea conditio matris desiderio adversa fuit; Proserpina enim grana tria ex malo granato gustasse comperta est. Neque idcirco Ceres destitit, quin preces et ploratus de integro resumeret. Postremo itaque ei indultum est, ut Proserpina, dispertitis temporibus et alternis vicibus, sex menses cum marito, alteris sex eum matre esset. Hane Proserpinam postea Theseus et Pirithous eximia audacia thalamo Ditis deducere tentarnat. Cum autem in itinere super saxo apud inferos defessi consedissent, eis resurgere minime lieuit, sed æternum sedebant. Proserpina itaqae inferorum regina mansit; in cujus honorem etiam additum est privilegium magnum; cum enim ab inferis revocare gradum illis, qui eo descendissent, fas non esset, adscripta est huie legi exceptio singularis; ut si quis ramum aureum in donum Proserpinæ attulisset, ei ob hoc ire et redire liceret. Is ramus unicus erat in ingenti et opaco luco, neque stirps erat, sed visci instar in aliena arbore frondebat, atque avulso illo alter non deficiebat.

Fabula ad naturam pertinere videtur, atque vim et copiam illam in subterraneis divitem et frugiferam, ex qua hæc nostra pullulant, et in quam rursus solvuntur et redeunt, perscrutari. Per Proserpinam antiqai significarunt spiritum illum æthereum, qui sub terra (per Plutonem repræsentatur) elauditur et detinetur, a superiore globo divulsus, qaod non male expressit ille:

> "Sive receas tellus, seductaqne nuper ab alto
> Æthere, cognati retinebat semina cœli."

Ille spiritus raptus a terra fingitur, quia minime eohibetur ubi tempus et moram habet ad evolandum,

sed subita confractione et comminutione tantum compingitur et figitur, perinde ac si quis aërem aquæ commiscere tentet; quod nullo modo effieere possit, nisi per agitationem celerem et rapidam: hae enim ratione videmus illa corpora conjungi in spuma, aëre tanquam rapto ab aqua. Neque ineleganter additur, Proserpinam flores Narcissi in vallibus colligentem raptam fuisse: quia Narcissus a torpore sive stupore nomen sumit: atque tum demum spiritus ad raptum materiæ terrestris magis preparatus est et opportunus, cum coagulari incipit, ac veluti torporem colligere. Recte autem tribuitur honor ille Proserpinæ, qualis nulli uxori deorum, ut Ditis Domina sit, quia ille spiritus plane omnia in illis regionibus administrat, stupido et quasi ignaro Plutone. Hunc autem spiritum æther, ac vis cœlestium (per Cererem adumbrata) infinita sedulitate elicere, atque sibi restituere contendit. Fax autem illa ætheris, sive tæda ardens in manu Cereris, proculdubio solem denotat, qui circa terræ ambitum luminis officio fungitur, atque maximi omnium esset ad Proserpinam recuperandam momenti, si omnino hoc fieri posset. Illa tamen hæret, et manet: cujus ratio sequitur accurate et excellenter proposita in poetis illis Jovis et Cereris. Primum enim certissimum est, duos esse modos spiritus in materia solida et terrestri cohibendi: alterum per constipationem sive obstructionem, qui est mera incarceratio et violentia: alterum per ministrationem proportionati alimenti, atque ibi fit sponte et libenter. Postquam enim spiritus inclusus depascere incepit atque se alere, evolare protinus non festinat: sed veluti in terra sua figitur: atque hæc est degustatio Proserpinæ ex malo granato; quæ si non fuisset, jam pridem a Cerere, cum haec illa sua orbem terrarum peragrante, abducta fuisset. Spiritus enim, qui subest metallis et mineralibus, compingitur fortasse præcipue per massæ soliditatem; qui autem in plantis est et animantibus, in corpore poroso habitat, et aperta effugia habet, nisi per illum modum degustationis libenter detineretur. Secundum autem poetam de semestri consuetudine non aliud est, quam elegans descriptio dispertitionis anni; cum spiritus ille, per terram perfusus, quoad res vegetabiles mensibus æstatis apud superiora degat, atque mensibus hiemis ad subterranea redeat. Quod vero attinet ad conatum illum Thesei et Pirithoi abducendæ Proserpinæ, id eo spectat, quod sæpius fiat, ut spiritus subtiliores, qui ad terram in multis corporibus descendunt, neutiquam illud efficiant ut spiritum subterraneum exsugant, et secum uniant, et evehant; sed contra ipsi coagulentur, neque amplius resurgant; ut Proserpina per eos aucta incolis et imperio sit. De virga autem illa aurea, vix videmur sustinere posse impetum chemistarum, si in nos hae ex parte irruant; cum illi ab eodem lapide suo, et auri montes, et restitutionem corporum naturalium, veluti a portis inferorum, promittant. Verum de chemica, atque lapidis illius procis perpetuis, certo scimus theoricam eorum esse sine fundamento; suspicamur etiam practicam esse sine certo pignore. Itaque missis illis, de ista postrema parabolæ parte hæc nostra sententia est. Nobis certe compertum est ex compluribus antiquorum figuris, eos conservationem atque instaurationem quadantenus corporum naturalium pro re desperata non habuisse, sed potius pro re abstrusa et quasi avia. Atque idem sentire hoc etiam loco videntur, cum virgulam istam inter infinita virgulta ingentis et densissimæ sylvæ collocarunt; auream autem finxere, quia aurum durationis tessera est: insitivam, quia ab arte hujusmodi effectus sperandus est, non ab aliqua medicina, aut modo simplici aut naturali.

XXX. METIS, SIVE CONSILIUM.

Narrant poëtæ antiqui Jovem cepisse in uxorem Metin, cujus nomen non obscure consilium significat: eam autem ex illo gravidam factam fuisse: quod cum ille sensisset, partum ejus nullo modo exspectasse, sed utique eam devorasse, unde et ipse prægnans factus sit: puerperium autem mirum fuisse; nam ex capite, sive cerebro Palladem armatam peperisse.

Hujus fabulæ monstrosæ et primo auditu insulsissimæ sensus arcanum imperii continere videtur, qua arte, scilicet, reges se versus concilia sua gerere soleant, ut auctoritas et majestas eorum non solum illibata conservetur, verum apud populum augeatur et extollatur. Nam reges se cum conciliis suis vinculo veluti nuptiali copulare et conjungere, et de rebus maximis cum eis deliberare, recto et prudente instituto consueverunt; idque majestatem eorum neutiquam imminuere haud ab re judicant: verum cum res jam ad decretum spectat, quod instar partus est, concilii partes non ultra tendere sinunt, ne acta ex concilii arbitrio pendere videantur. Verum, tum demum reges (nisi hujusmodi res sit ut invidiam a se derivare cupiant) quicquid a concilio elaboratum et veluti in utero efformatum est, in se transferre consueverunt, ut decretum et executio (quæ, quia cum potestate procedit et necessitatem infert, eleganter sub figura Palladis armatæ involvitur) ab ipsis emanare videatur. Neque satis est ut hoc ab auctoritate regum et eorum voluntate soluta, et libera, et non obnoxia, profectum videatur; nisi etiam hoc sibi reges sumant, ut ex capite eorum, id est, ex judicio et prudentia propria, decreta nata existimentur.

XXXI. SIRENES, SIVE VOLUPTAS.

Fabula de Sirenibus ad pernicios as illecebras voluptatis recte, sed sensu vulgatissimo, transfertur. Nobis autem videtur sapientia veterum, tanquam uvæ male calcatæ; ex quibus licet nonnihil exprimitur, tamen potissima quæque resident et prætermittuntur. Sirenes Acheloi et Terpsichores, unius ex Musis, filiæ fuisse narrantur; eæ primis temporibus alatæ erant: sed inito temere cum Musis certamine victæ, alis muletatæ sunt. Ex pennis autem evulsis Musæ coronas sibi fecerunt: adeo ut ab eo tempore Musæ cum capitibus alatis procederent, præter unam Sirenum matrem. Mora autem Sirenum erat in insulis quibusdam amœnis: illæ vero e specula naves adventantes cum conspicerent, cantu navigantes primo detinebant, deinde allicichant, exceptos autem necabant. Neque simplex erat cantilena, sed singulos modis maxime naturæ eorum convenientibus captabant. Tanta autem pestis erat, ut insulæ Sirenum etiam longe intuentibus alberent ex ossibus

cadaverum inhumatorum. Huic malo remedium repertum est genere et modo duplex; alterum ab Ulysse, alterum ab Orpheo: Ulysses sociis omnino aures cera obturari jussit; ipse, cum experimentum rei facere vellet, periculum autem depellere, se ad malum navis alligari voluit, interminatus, ne quis eum, licet rogatus, solveret: Orpheus vero, missis hujusmodi vinculis, clara voce deorum laudes cantans ad lyram, voces Sirenum retudit, et extra omne periculum fuit.

Fabula ad mores pertinet, atque minime obscura sane, nec tamen inelegans parabola videtur. Voluptates ex copia rerum ac affluentia; atque ex hilaritate sive exultatione animi proveniunt: illæ olim primis ipsis illecebris subito, et tanquam alatæ, mortales rapere solebant. Doctrina autem et eruditio hoc saltem effecit, ut animus humanus se nonnihil cohibeat, et exitum rei secum perpendat; itaque alas voluptatibus detraxit. Hoc autem in Musarum decus et honorem egregium cessit: postquam enim philosophiam contemptum voluptatum inducere posse nonnullorum exemplo patuit; statim res sublimis visa est, quæ animam veluti humo affixam attollat et evehat, et hominum cogitationes (quæ in capite vigent) pennatas et veluti ætthereas faciat. Sola Sirenum mater pedestris, et sine alis mansit; ea proculdubio nil aliud est, quam doctrinæ leves et ad jucunditatem inventæ et adhibitæ; quales videntur Petronio illi in pretio fuisse, qui postquam sententiam mortis accepisset, in ipsis atriis mortis delicias quæsivit, cumque etiam literas in solatium adhibere vellet, nil (inquit Tacitus) legit eorum, quæ ad constantiam faciunt, sed leves versus. Ex hoc genere est illud:

> "Vivamus, mea Lesbia, atque amemus,
> Rumoresque senum severiorum
> Omnes unius æstimemus assis."
>
> CATULL. Eleg. v.

Et illud:

> "Jura senes norint, et quid sit fasque nefasque
> Inquirant tristes, legumque examina servent."

Hujusmodi enim doctrinæ alas Musarum coronis rursus detrahere, et Sirenibus restituere velle videntur. Habitare autem perhibentur Sirenes in insulis, quia voluptates fere secessus quærunt, atque hominum cœtus sæpe vitant: Sirenum autem cantus omnibus decantatus est, ejusque pernicies et artificium varium: itaque interprete hæc non egent. Illud magis acutum de ossibus veluti clivis albentibus e longinquo visis: ex quo illud significatur, exempla calamitatum, licet clara et conspicua, contra voluptatum corruptelas non multum proficere. Restat de remediis parabola, non abstrusa ea quidem, sed tamen prudens et nobilis. Proponuntur enim mali tam callidi, et tam violenti, remedia tria: duo a philosophia; tertium a religione. Atque primus effugii modus est, ut quis principiis obstet, atque omnes occasiones, quæ animum tentare et solicitare possint, sedulo devitet: id quod obturatio illa aurium denotat; atque hoc remedium ad animos mediocres et plebeios necessario adhibetur, tanquam ad comites Ulyssis. Animi autem celsiores etiam versari inter medias voluptates possunt, si decreti constantia se muniant: quin et per hoc, virtutis suæ experimentum magis exquisitum capere gaudent; etiam voluptatum ineptias et insanias perdiscunt, potius contemplantes quam obsequentes: quod et Salomon de se professus est, cum enumerationem voluptatum, quibus diffluebat, ea sententia claudat: "Sapientia quoque perseveravit mecum." Itaque hujusmodi heroës inter maximas voluptatum illecebras se immobiles præstare, atque in ipsis earum præcipitiis se sustinere queant; tantum, ad Ulyssis exemplum, interdictis perniciosis suorum consiliis et obsequiis, quæ animum maxime omnium labefactare et solvere possint. Præstantissimum autem in omni genere est remedium Orphei; qui laudes deorum cantans et reboans, Sirenum voces confudit et summovit: meditationes enim rerum divinarum voluptates sensus non tantum potestate, sed etiam suavitate, superant.

NOVA ATLANTIS.

OPUS IMPERFECTUM.

LECTORI S.

FABULAM hanc (Novæ Atlantidis) eo animo confixit honoratissimus auctor, ut in ea modulum quendam et descriptionem collegii, ad interpretationem naturæ, et operum magnitudinem ac potentiam, instituti, exhiberet: idque nomine Domus Salomonis, sive Collegii operum sex dierum, insigniret. Atque eousque sermonis filum produxit, donec hoc conficeret. Modulus, fateor, pro more poëtices, grandior et celsior est, quam qui in omnibus imitationi pateat; verumtamen in plerisque industria hominum sibi non diffidat. In animo etiam habuit, hac ipsa in fabula, librum "De Legibus, sive de optimo civitatis statu," exarasse: sed cum opus hoc prolixum futurum prævideret; necnon historiæ naturalis colligendæ, aliarumque "Instaurationis" partium contexendarum (quas longe potiores duxit) desiderio abriperetur; hic pedem fixit. Hæc habui in mandatis; lege, et vale.

GUIL. RAWLEY.

Navigavimus e Peruvia, ubi per annum integrum commorati sumus: petebamus autem Chinam, et Japoniam; commeatum in duodecim menses nobiscum portantes; atque per spatium quinque mensium, et amplius, ventis secundis ab ortu flantibus, licet lenioribus et remissioribus, usi sumus. Tum vero vertit se ventus, et ab occidente per multos dies constanter spiravit; adeo ut progredi lente admodum possemus, atque de reditu quandoque cogitaremus. Sed tunc rursus orti sunt austri fortes et vehementes, cum inclinatione nonnulla in orientem; qui nos (quantum fieri potuit) contra nitentes, versus septentrionem compulerunt: quo tempore commeatus noster (etsi parce admodum eum distribuissemus) penitus absumptus. Itaque, cum nos ipsos in medio vastissimæ per universum orbem aquarum eremi positos videremus absque commeatu, perditos nos plane putabamus, et mortem propinquam expectabamus. Attamen corda nostra, et voces ad Deum in cœlis levavimus; qui mirabilia sua in profundis monstrat; eum precantes, pro misericordia sua, ut, quemadmodum in principio congregationes aquarum mandavit, et aridam apparere fecerat; ita nunc quoque terram nobis ostenderet, ne periremus. Contigit autem, ut die sequente, sub vesperi, intra modicam distantiam, cerneremus, septentrionem versus, tanquam nubes spissas: quæ nobis de terra spem injecerunt, satis gnaris, tractum illum maris australis penitus incognitum fuisse; atque insulas, et continentes, adhuc non detectas, complecti potuisse. Itaque cursum, tota illa nocte, eo direximus, ubi terra se, ut conjiciebamus, ostenderat: atque illucescente die postero manifestum fuit, id, quod videramus, terram revera fuisse, depressam quidem et sylvosam: quod eam magis obscuram monstraverat. Atque post sesqui-horæ navigationem portum tutum appulimus; portum urbis cujusdam, non magnæ quidem, sed pulchre exstructæ, et quæ, ex qua parte mare spectabat, elegantiam magnam præ se tulit. Nos vero singula momenta tarda æstimantes, quibus a terra abessemus, ad littus properavimus, et ad descensum in terram nos comparavimus. Confestim autem vidimus nonnullos ex populo urbis, cum baculis in manibus, qui nutu et signis nos in terram descendere prohibuerunt: absque tamen clamoribus, aut ferocia. Unde haud parum contristati, quid facierndum esset apud nos deliberamus. Interim perrexit versus nos scapha haud magna, octo circiter viros vehens; quorum unus in manu gestabat baculum ex arundine lutea, ad utrumque finem cæruleo colore imbutum; qui navem nostram fidenter conscendit. Cumque vidisset unum e nostris obviam illi prodeuntem, e sinu extraxit rotulum quendam pergamenæ, (sed pergamena nostra paulo flavioris, atque ad instar foliorum eodicillorum splendentis, alias autem mollis satis et flexibilis,) eique in manum dedit, qui primus e nostris se obtulerat. In quo rotulo, lingua Hebraica prisca, Græca quoque prisca, Latina satis pura, et Hispanica, scripta erant hæc verba: " In terram ne descendatis; nedum quispiam e vestris. Quin et discessum ab his oris maturate, intra sexdecim dies, nisi licentia vobis diutius morandi concedatur. Interea, si aqua vobis opus sit dulci, aut commeatu, aut medicina, et curatione pro ægrotis, aut si navis vestra reparatione indigeat, singula, quibus caretis, in scriptis exhibete. Nos autem officiis ullis misericordiæ vobis non deerimus." Rotulus iste sigillo firmatus erat ex alis Cherubim, minime expansis, sed deorsum pendentibus, et juxta eas cruce. Hoc tradito, minister ille discessit, et unum ex famulitio suo nobiscum reliquit, qui responsum nostrum reportaret. Cum jam apud nos de hac re deliberaremus, timidi et anxii hærebamus. Arceri a descensu in terram, et moneri de præpropero nostro discessu; male nos afflixerunt. Contra, cum videremus populum illum lingnas externas callere, tantaque humanitate præditum esse, consolationi nobis erat non exigue: ante omnia, signum crucis, instrumento appositum, singulari gaudio nos affecit, tanquam salutis augurium manifestum. Responsum a nobis est lingua Hispanica, navem nostram satis commode se habere, quandoquidem malacias, et ventos contrarios potius experti essemus, quam tempestates: quantum ad ægrotos nostros, eos plurimos esse, quin et graviter laborantes, ita ut nisi descensus in terram illis permitteretur, de vita pericliterentur. Alia, quibus carebamus, speciatim exhibuimus, addentes, adesse nobis merces pauculas, quas si eis emere placeret, necessitatibus nostris subveniri posse, ne illis oneri essemus. Obtulimus servo præmium exiguum in ducatis, et holoserici charmosyni parcellam, quæ ministro superiori offerretur; sed ille non accepit, imo vix aspicere sustinuit: atque ita in alia parva scapha, quæ ad eum missa fuit, discessit.

Tribus plus minus horis elapsis postquam servus responsum nostrum accepit, lembo versus nos devectus est vir (ut videbatur) ex magistratibus. Indutus erat toga cum manicis amplis, ex camcloto, coloris cœrulei pulcherrimi, splendidioris multo, quam nos in Europa habemus: tunica interior viridis erat; et similiter galerus ejus, qui factus erat in figuram turbani, eleganter compositi, neque prægrandis, qualia solent esse Turcica; atque capillorum suorum cincinni infra oram turbani dependebant. Vir sane aspectu venerabilis. Vectus est in lembo, aliqua ex parte inaurato, quatuor solummodo viris, in eodem lembo, comitatus. Alius autem a tergo sequebatur, in quo erant viri circiter viginti. Quamprimum intra spiculi jactum venisset, signis quibusdam e lembo moniti sumus, ut aliquos e nostris ad illum mitteremus. Id quod statim fecimus in navis nostræ scapha; virum ex nostris (uno excepto) primarium mittentes, et quatuor eum illo. Cumque circiter sex virgatas a lembo abessemus, jubebant ut nos sisteremus, nec propius accederemus. Quod et fecimus. Tum vero vir, quem modo descripsi, in pedes se erexit, et alta voce Hispanice interrogavit; Num Christiani estis? Respondimus: Christianos nos esse: minus metuentes, quia signum crucis in instrumento illo videramus. Ad quod responsum, dexteram ille versus cœlum sustulit, et deinde leniter ad os suum adduxit; qui gestus in usu illis est cum Deo gratias agunt. Tunc autem perrexit: " Si jurabitis (unusquisque vestrum) per merita Servatoris, piratas vos non esse: nec sanguinem humanum effudisse, sive jure, sive vi, intra spatium quadraginta dierum, ultimo elapsorum, licentiam obtine-

bitis in terram descendendi." Respondimus, paratos nos omnes esse ad illud juramentum præstandum. Unde unus ex comitatu ejus, qui videbatur notarius esse, illud in scriptum redegit. Quo facto, alter e comitatu viri illius primarii, qui in eodem lembo vehebatur, postquam dominus in aurem ei quidpiam locutus esset, alta voce dixit: "Dominus meus hoc vobis notum esse velit, non ex superbia, aut fastu esse, quo minus navem vestram conscendat; sed, quia ex responso vestro innotescit plurimos inter vos se male habere, a conservatore sanitatis in urbe monitus erat, ut ad aliquam distantiam colloqueretur." Submisso capite nos inclinavimus, et respondimus: servos ejus humillimos nos omnes esse; magnoque honori ducere, et singulari suæ humanitati tribuere, id quod jamdudum factum esset: sed sperare nos, morbum illum, quo ægroti nostri laborant, contagiosum minime esse. Ita vir ille primarius reversus est. Paulo post adfuit notarius, et navem nostram conscendit; in manu sua fructum quendam ejus regionis tenens, aurantio non absimilem, verum colore magis in coccineum vergente, qui odorem spirabat suavissimum. Illum (ut videtur) gestabat, ut ei contra contagionem antidoti vice esset. Exhibuit autem nobis juramentum: per Jesum Dei filium, et merita ejus; ac deinde nobis dixit, postero die, ante solis exortum, affuturum, qui nos accerseret, ac ad domum peregrinorum perduceret, ubi præsto nobis essent quæcunque necessaria, sive pro ægrotis, sive pro sanis. Sic a nobis discessit: eumque ei aureos aliquos obtulissemus, subridens dixit: "se binum salarium pro una opera accipere non debere." Quorum verborum (ut arbitror) in sensus erat, quod salarium e publico ob operam suam reciperet. Nam (ut postea intellexi) officiarium, qui præmia accipit, hominem bini salarii vocant.

Postero mane diluculo accessit ad nos minister ille, qui primus eum arundine sua nos adierat, et retulit: se venisse, ut ad domum peregrinorum nos deduceret: se autem horam antiepasse, ut commoditatem integri diei ad negotia nostra haberemus. "Si autem," inquit, "mihi auscultabitis, primo mecum aliquos vestrum mittetis, qui locum circumspiciant, et quomodo optime ad vos recipiendos accommodari possit: postea autem ægrotos vestros accersetis, et reliquos, quos in terram descendere vultis." Gratias ei egimus, et diximus, curam hanc, quam pro peregrinis miseris suscepit, Deum pro certo remuneraturum. Itaque sex e nostris eum comitati sunt. Præiit ille, et respiciens ad nos, dixit perhumane certe: se servum nostrum tantummodo esse; et viæ ducem. Duxit autem nos per tres plateas, pulchras admodum: atque per totam, quam pertransivimus, viam haud pauci e populo ad utrumque latus congregati sunt, ordine stantes: verum more adeo civili, ut viderentur non tam ad otiosum spectaculum convenisse, quam ut adventum nostrum gratularentur. Multi autem ex iis, cum incederemus, brachia sua paululum aperuerunt: quo gestu utuntur cum adventum alicujus sibi gratum esse significare volunt. Domus peregrinorum ædificium est speciosum et spatiosum, exstructum ex lateribus, nostris colore paulo magis purpureis; cum fenestris decoris, aliquibus ex vitro, aliquibus autem ex panno linteo delicato, oleo intincto. Deduxit nos primo in cœnaculum satis elegans, super gradus locatum: tunc autem a nobis quæsivit: quot numero essemus? et, quot e nostris ægroti? Respondimus: universum numerum, tam sanorum, quam ægrotorum, esse ad unum et quinquaginta homines: ex quibus ægroti erant septendecim. Rogavit nos, ut aliquantisper præstolaremur, dum ad nos rediret. Quod post horam circiter fecit. Tum vero adduxit ad cubicula visenda, quæ nobis parata erant, numero novendecim: computatione scilicet inita (quemadmodum videtur) ut quatuor ex illis cubiculis, quæ reliquis nonnihil præstabant, quatuor ex primariis nostris exciperent, in quibus seorsum cubarent; reliquorum quindecim singula binis assignarentur. Cubicula elegantia erant, et lucida, nec non suppellectili satis lauta ornata. Tum demum in porticum longam divertimus; qualia solent esse dormitoria monachorum; ubi ostendit nobis, per latus unum integrum (nam latus adversum nihil aliud erat, quam paries, et fenestræ) cellas septendecim, nitidas, partitiones habentes ex cedro. Quæ porticus, cum cellis, numero quadriginta (multo scilicet pluribus, quam nobis opus erat) instituta erat ad usum infirmorum. Simulque monuit, quod quamprimum aliquis ex ægrotis convalesceret, transferri posset e cella in cubiculum. Ad quem usum parata erant decem alia cubicula, præter illa, de quibus ante diximus. Hoc facto, in cœnaculum nos reduxit, et attollens paululum arundinem suam, (quod in more illis erat, quoties ministri mandata superiorum referunt,) ita ad nos locutus. "Notum vobis facio, consuetudinem regni hujus postulare, ut post diem instantem, et crastinum, (quos vobis ad transferendos e navi homines, et res vestras, permittimus,) continueatis vos ipsos intra fores hasce in triduum. Verumtamen hoc vos non perturbet, neque propterea intra cæremem vos compingi existimate: sed potius indultum hoc esse, quo ab itinere vestro spiritus recreetis et reficiatis. Nullius rei egebitis: quin et sex famuli assignati sunt, qui vobis ministrent, et negotia vestra expediant." Gratias ei egimus cum omni affectu et humilitate; et diximus: "Deus procul dubio in hac terra manifestatur." Obtulimus ei etiam viginti aureos, sed ille quoque subridens, hoc solum dixit: "Quid, vultis me esse hominem bini salarii?" Sic abiit. Paulo post, prandium nostrum allatum est: quod certe satis lautum, et salubrem victum, tam respectu ciborum, quam potus, exhibuit: meliorem certe et uberiorem, quam pro modulo collegii ullius, quantum novi, in Europa. Potus erat trium generum: unumquodque eorum bonum et salubre: vinum ex uvis: potus ex granis, qualis est apud nos cerevisia, sed clarus et limpidus: et sicera genus ex fructu quodam ejus regionis confectum, potus sane gratissimus, et miri refrigerii. Allata etiam est nobis magna copia aurantiorum illorum coccineorum, in usum ægrotorum: aiebant enim, ea præsens et efficax esse remedium contra ægritudinem in navigatione contractam. Præterea, pyxidem nobis tradidit, pillulis albescentibus sive cineritiis, plenam: monuitque ut ægroti nostri unam earum, singulis noctibus, in introitu lecti, sumerent: quas dixerat sanitatem eorum acceleraturas. Proximo die, cum a labore et opere circa vecturam homi-

num, et rerum nostrarum e navi, requievimus, visum est mihi, socios nostros in unum convocare: cum autem convenissent, ita eos allocutus sum: "Amici mei charissimi, noscamus nos ipsos, et quo loco res nostræ sint. Viri sumus, in terram projecti e mari, sicut Jonas e ventre balenæ, cum in alto veluti sepulti essemus. Jam vero licet terram rursus calcamus, inter vitam tamen et mortem medii consistimus. Etenim fines, et veteris, et novi orbis, prætervecti sumus. Atque utrum nobis Europam rursus conspicere dabitur, soli Deo notum. Miraculo quodam huc advecti sumus, atque a miraculo prope aberit, si hinc abvehamur. Quocirca, salutem præteritam, ac pericula præsentia et futura animo recolentes, ad Deum nos convertamus, corda levemus, et vias nostras singuli corrigamus. Præterea ad populum Christianum, pietatis et humanitatis plenum, venimus: curemus (quæso) ne illam faciei confusionem super nos inducamus, ut coram illis vitia nostra, aut malos mores palam faciamus. Adhuc restat amplius: illi enim (etsi sub humanitatis forma) nos hujusce domus clanstris ad triduum concluserunt, quis novit, numnam hoc faciant, quo morum nostrorum experimentum sumant: quos si repererint pravos, confestim exulare nos jubebunt; sin probos, moram hic longiorem indulgebunt: quos enim assignarunt, famuli isti, quidni etiam speculatorum vices agant? Itaque, propter amorem Dei, atque si charum nobis sit bonum animarum et corporum nostrorum, ita nos geramus, ut et pacem cum Deo habeamus, et gratiam in oculis populi hujus inveniamus." Socii nostri una voce mihi de iis, quæ admonueram, gratias egerunt, promiseruntque sobrie se et modeste victuros, absque scandalo vel minimo. Itaque tres illos dies læti, et curis vacui, peregimus, nihil soliciti de eo, quod nobis post triduum illud contingere posset: quo etiam dierum curriculo assidue propter convalescentiam ægrorum nostrorum exhilarati sumus; qui se, veluti in probaticam aliquam, divina sanandi virtute præditam, missos existimabant: tam celeriter siquidem et constanter convalescebant.

Crastino post illud triduum elapsum venit ad nos homo novus, quem antea non videramus, veste cœrulea amictus, quemadmodum et prior, nisi quod turbanum ejus album esset, cum cruce parva rubea in vertice. Habuit etiam liripipium circa collum, ex linteo purissimo. Sub introitum suum paululum se inclinavit, et brachia sua nonnihil explicavit. Nos vero eum resalutavimus modo admodum humili et submisso, ab ore ejus sententiam, vel vitæ, vel mortis exspectantes. Postulavit, ut cum paucis aliquibus hominum nostrorum colloqueretur. Itaque sex tantum manserunt, cæteri se subduxerunt. Tum ille: "Ego quidem domus hujus peregrinorum officio præpositus sum; vocatione autem presbyter Christianus. Itaque jam accessi, ut operam meam vobis in omnibus præstarem, tanquam peregrinis, sed præcipue tanquam Christianis. Nonnulla habeo, quæ vobis referam, quæ (ut arbitror) non illibenter audietis. Status iste licentiam vobis dedit per sex septimanas ulterius commorandi. Neque vos conturbet, si quidem negotia vestra spatium amplius postulent: nam neque lex ipsa regni in hac parte rigida est; tum vero minime dubito, quin et ipse vobis comperendi nationem temporis istius, prout res vestræ flagitabunt, procurare possem. Quin et insuper narro vobis domum hanc peregrinorum isto tempore sat ditescere, et pecunia numerata bene instrui: reditus enim suos accumulavit jam per septem et triginta annos: tot enim effluxerunt, ex quo peregrinus aliquis ad has partes appulerat: itaque de impensis vestris soliciti ne sitis. Sumptus, quamdiu hic manseritis, e publico ærario ministrabitur: neque vel punctum temporis, hujus rei causa, de mora vestra decedet. Quantum vero ad merces, quas adduxisse dicitis, nullæ vobis imponentur conditiones duræ, sed justis pretiis eas vendetis, valorem earum accipientes, vel in mercibus aliis, vel in auro et argento: nostri enim nihil interest. Sin vero quicquam sit, quod a statu isto petere velitis, illud nos ne celetis. Reperietis enim nos responsum tale relaturos, quo vultus vester minime decidat, aut contristetur. Hoc tantum vobis edico, ne quis vestrum karanna longius (illa apud eos sesquimilliari æquivalet) a mœniis urbis abscedat, sine licentia speciali." Respondimus, postquam nos vicissim intuitu essemus, gratiosam hanc et quasi paternam benignitatem admirantes, non habere nos, quod diceremus, cum et gratiis agendis verba non suppeterent, et prænobilis ejus et inopinata munificentia omnia, quæ a nobis petenda essent, præoccupasset. Nos certe cogitationem illam subire, quasi effigiem salutis æternæ in cœlis ante oculos haberemus: siquidem, qui paulo ante in faucibus mortis constituti eramus, adductos jam esse in locum, ubi consolationes perpetuæ et nil aliud spirant. Quantum ad mandatum nobis impositum, obedientiam summam præstituros, etsi fieri non posset, quin corda nostra ardentissimo sanctam illam et felicem terram ulterius visendi desiderio inflammarentur. Adjecimus, linguas prius faucibus nostris adhæsuras, quam nos mentionem vel personæ ejus venerandæ, vel gentis hujus universæ, in precibus nostris omiteremus. Supplicavimus etiam ei, ut nos in numero servorum suorum, verorum merito et fidorum, reputaret, jure non minore, quam quo unquam mortales mortalibus devincti fuerint: itaque nos ipsos, et omnia nostra ad pedes ejus humiliter projicere. Dixit, "sacerdotem se esse, et sacerdotis mercedem exspectare:" id est, fraternum amorem nostrum, et bonum animarum et corporum nostrorum. Ita a nobis discessit, non sine lacrymis, præ tencritudine animi obortis; nos quoque reliquit gaudio et affectu gratitudinis confusos et perculsos, atque invicem dicebamus, nos venisse in terram quandam angelorum, qui nobis quotidie apparebant, et consolationibus prævcniebant, quas ne cogitare quidem potuissemus, nedum exspectare.

Die proximo, horam circiter decimam matutinam, denuo nos invisit præpositus: et post salutationes utrinque factas dixit familiariter: se venisse, ut nos visitaret, et tempus nobiscum tereret. Tum cathedram poposcit, et consedit. Nos autem, numero decem (nam cætcri aut inferiores erant, aut foras abicrant) circa eum sedimus: ac deinde ita exorsus est. Nos de insula hac Bensalem (ita enim eam vocant lingua sua) hoc habemus, quod ob situm insulæ nostræ solitarium, et leges peregrinantibus e nobis impositas de terra hac celanda, et raram exterorum admissionem in regionem nostram, nobis

quidem maxima pars orbis habitabilis nota sit, ipsi vero aliis penitus simus incogniti. Itaque cum quæstiones illis aptiores sunt, qui minus norunt, consentaneum est magis, ut vos me interrogetis, quam ut ego vos." Respondimus: nos illi gratias maximas referre, quandoquidem hanc nobis licentiam indulgeret: tum ex iis, quæ jam observavimus, facile nos conjiceere, non esse rem in mundanis cognitu dignioremm, quam statum et conditionem terræ hujus felicissimæ. Sed ante omnia (diximus) cum ab extremis terræ oris jam convenerimus, nec non in regno cœlesti nos olim conventuros speremus (eo quod utrinque Christiani simus) scire avemus, quandoquidem terra ista in tantum dissita sit, et vastis et incognitis maris tractibus divisa, a terra illa, in qua Servator noster, dum in carne fuit, versabatur: quis tandem hujus gentis apostolus, et quibus modis ad fidem conversa fuerit? Facile erat, ex vultu ejus perspicere, gratam illi imprimis fuisse hanc quæstionem nostram: "Cor meum (inquit) vobis mirifice attraxistis, quod quæstionem hanc primo in loco proponitis: indicat enim, vos quærere primum regnum Dei: atque libenter, et breviter, postulato huic vestro satisfaciam."

"Annos circa viginti ab ascensione Domini factum est, ut conspiceretur a populo Renfusæ (urbis maritimæ ad orientalem plagam regionis nostræ sitæ) noctu (nox autem erat nubila, sed placida) juxta mille passus a littore, columna lucis prælta; non figura pyramidali, sed veluti cylindri, e pelago versus cœlum erecta, et in vertice ejus erux lucis ampla, corpore colnmnæ aliquanto splendidior. Ad spectaculum hoc tam mirabile congregatus est (ut fit) populus urbis super arcnas maris, et stabat paulisper attonitus: verum paulo post scaphis parvis plurimi se commiserunt, ut rem tanti stuporis propius inspicerent. Verum, postquam scaphæ intra sexaginta circiter a columna virgatas advenissent, ecce omnes subito se sistebant, nec ulterius procedere poterant: ita tamen, ut in circuitu movere, sed non accedere propius liceret: adeo ut scaphæ veluti in theatro starent, lucem hanc tanquam scenam cœlestem spectaturæ. Evenit autem forte fortuna, ut in scapharum una adesset quispiam ex sapientibus nostris, societatis nimirum domus Salomonis: quæ domus sive collegium (fratres mei charissimi) oculus plane est hujusce regni; qui postquam aliquandin columnam hanc, una cum ernce, attente et devote contemplatus esset, in faciem se prostravit, et dein se in genua erigens, manusque ad cœlum attollens, hujusmodi preces fudit:"

"Domine Deus cœli et terræ; ex gratia tua speciali ordinis nostri hominibus dignatus es opera tua creationis, et eorum secreta nosse; atque dijudicare (quantum generationibus hominum datur) inter miracula divina, opera naturæ, effectus artis, et illusiones dæmonum, cum imposturis omnimodis. Agnosco et testor coram hoc populo, rem hanc, quam ante oculos intuemur, esse digitum tuum, et miraculum verum. Quoniam autem e libris nostris didicimus, miracula nunquam a te edita, nisi ob finem aliquem divinum, et excellentem (etenim leges naturæ leges tuæ sunt, a quibus nisi magnam ob causam minime recedis) humillime obsecramus, ut signum hoc magnum nobis fortunes, atque ejus interpretationem et usum in misericordia concedas; id quod, dum idem ad nos mittas, tacite et secreto polliceris."

"Postquam ita precatus est, continuo scapham, in qua vehebatur, solutam sensit et mobilem, cæteris adhuc veluti ligatis manentibus. Illud in signum certum licentiæ appropinquandi interpretatus, scapham fecit placide, et cum silentio, versus columnam, remigio impelli. Verum antequam ad illam pervenisset, columna cum cruce lucis dissipata est, et se undique tanquam in firmamentum quoddam stellarum multarum vertit: quæ etiam et ipsæ brevi evanuerunt: neque aliud restabat spectandum, præter arcam quandam parvam ex cedro, siccam quidem, neque aqua ullatenus madefactam, etsi nataret. In parte autem ejus priore versus sapientem, ramus palmæ, exiguus quidem et viridis, crescebat. Is postquam plurima cum veneratione arcam in scapham suam recepisset, ecce arca sponte se aperuit, in qua reperti sunt liber et epistola: uterque in membrana pura scriptus, et sindonibus linteis involutus. Liber continebat canonicos libros universos Veteris et Novi Testamenti, prout vos illos habetis (etenim satis scimus quos libros ecclesiæ apud vos recipiunt) atque apocalypsis ipsa, et nonnulla alia ex Novi Testamenti scriptis, quæ eo tempore edita non erant, nihilominus eo libro continebantur. Quod vero ad epistolam, illa in hæc verba scripta erat:"

"Ego Bartholomæus, servus Altissimi, et apostolus Jesu Christi, monitus sum ab angelo, qui in visione gloriæ mihi apparuit, ut arcam hanc maris fluctibus committerem. Itaque testor, et annuntio, ei populo, ad quem Deus ordinaverit hanc arcam appellere; eo ipso die ad eos venire salutem, et pacem, et bonam voluntatem a Patre, et Domino Jesu."

"Præterea in duobus his scriptis, tam libro, quam epistola, operatus est Deus miraculum insigne, illi, quod apostolis ostendit (dono originali linguarum) non dissimile. Etenim, cum eo tempore in hac terra viverent Hebræi, Persæ, et Indi, præter ipsos indigenas, singuli in libro illo, ac epistola, legerunt, ac si in lingua eujusque propria scripta fuissent. Hoc paeto (fratres mei) servata est hæc terra ab infidelitate (quemadmodum et reliquiæ mundi veteris servatæ fuerint ab aquis) per arcam, ope apostolicæ et miraculosæ evangelizationis sancti Bartholomæi." Atque hic loqui desiit, quando nuncius quidam venit, qui eum accersivit. Sicque eo colloquio nihil aliud intervenit.

Die postero, statim a prandio, rursus ad nos venit præpositus; seque excusavit, dicens, se pridie a nobis subito et inopinato avocatum, nunc vero rediisse, ut illud compensaret, tempusque nobiscum una insumeret, si modo gratum nobis consortium ejus aut colloquium fuerit. Respondimus, "Imo illud tam gratum nobis accedit, ut nec miseriarum præteritarum, nec periculorum futurorum memores simus, quamdiu colloquio ejus fruamur." Addidimus, existimare nos horam unam, sermones cum illo conserendo insumptam, annis integris vitæ nostræ prioris præstare. Inclinavit se paululum, et postquam consedissemus, dixit: "Bene habet, quæsti-

ones vestræ sunt." Tum unus e nostris, parva interposita mora, ita dixit: esse rem quandam, cujus cognoscendi quidem avidi, interrogandi autem timidi essemus, ne forte nimio plus præsumpsisse videremur: veruntamen singulari ejus erga nos humanitate confirmatos (cum nos vix pro exteris ducamus, qui servi ejus addictissimi et devotissimi sumus) ejus proponendi libertate usuros, humillime obtestantes, ut si responsione vix dignaretur, quæstioni tamen ignosceret, licet eam rejiceret. Dixit: nos observasse satis, et memoria adhuc tenere, verba illa ab ipso prolata, terram hanc felicem, in qua jam pedem figimus, paucis admodum cognitam esse, atque nihilo seeius plerasque orbis nationes satis nosse: id quod verum esse plane perspiciebamus, quandoquidem linguas Europæ callerent, et res nostras in plurimis intelligerent, cum nos e contra in Europa, post tot et tam remotas navigationes, hac ætate postrema susceptas, nihil prorsus de hac insula inauditerimus. Hoc mirari satis non posse, cum nationes omnes, aut per peregrinationes in partes exteras, aut per adventus exterorum ad eas, sibi invicem innotescant. Licet autem, qui in natione extera peregrinatur, plus notitiæ et informationis visu nanciscatur, quam domi manens a peregrinante, auditu solo, addiscere possit; attamen, utroque modo, notitiam mutuam, aliqua ex parte, haberi posse. Verum quantum ad hanc insulam, nunquam nova ad nos allata de alicujus navis ab ea ad oras nostras appulsu, nedum ad littora Europæ, neque ad littora Indiarum, occidentalis aut orientalis: neque aliquid accepisse de navi ulla, cujuscunque ea populi sit, quæ a terra hac redierit. In hoc autem illud, quod admirationem movet, non consistere, situm enim ejus (ut dominatio sua dixerat) in tam vasti pelagi conclavi secreto, huic rei in causa esse posse; verum ut illa contra notitiam linguarum, librorum, rerum haberent, gentium ab iis tam immensis spatiis dissitarum, id omnem admirationem superare, neque nobis quomodo fieri hoc possit, ullo modo in mentem venire: nobis siquidem divinarum mentium et potestatum, non autem hominum quorumvis conditionem videri, ut ipsæ occultæ et invisibiles lateant, cæteris interim illarum visui patentibus, et velut in aprico positis. Ad hæc verba præpositus placide subrisit, et dixit: non sine causa veniam nos hujus quæstionis petere, siquidem innuere, ac si terram hanc non aliam, quam terram magorum, duceremus, quæ spiritus aëreos in omnes partes emitteret: quorum ope et famulitio quæcunque in aliis regionibus gererentur pernosceret. Omnes uno ore humiliter respondimus, vultu tamen ita composito, ut eum non alias, quam joco, hoc dixisse præ nobis ferremus: nos sane facile in eam cogitationem venire, esse aliquid in hac natione plane supernaturale; illud tamen potius angelicum, quam magicum, ducere: verum ut perspicue apud dominationem suam eloqueremur, quid tandem illud fuerit, quod scrupulum hunc, ne quæreremus, injecisset, nihil ex hac re sapuisse, sed quoniam in sermone præterito eum innuisse memineramus, gentem istam de silentio erga peregrinos per leges cavisse. Ad hoc respondit: "Recte quidem meministis: itaque in iis, quæ proferre apud vos instituo, nonnulla reservanda sunt, quæ omnino revelare licitum non est: haud pauca tamen supererunt, quæ satisfactionem vobis abunde præstabunt.

"Intelligetis igitur (id quod vobis fortasse vix credibile videbitur) ter mille circiter abhinc annis, aut paulo plus, navigationes orbis terrarum (præsertim in regiones remotas) majores fuisse, et magis strenue susceptas, quam hodierno die. Ne existimetis, nescire me, quantum apud vos creverint navigationes intra annos centum et viginti proxime elapsos: satis mihi hoc cognitum. Et tamen, majores (inquam) fuerunt, eo tempore, quam nunc. Sive conservatio illa reliquiarum humani generis, per arcam, a diluvio universali hanc navigandi confidentiam hominibus indiderit, sive aliud quid in causa fuerit. Sed utcunque, hoc, quod dico, verum est. Phœnices, ac præcipue Tyrii magnas habebant classes. Similiter habebant et Carthaginienses, colonia ipsorum, quamvis ad occidentem magis sita sit. Ab oriente vero, classes Ægyptiorum, et Palæstinæ, potentes erant, et numerosæ. China autem, et Atlantis magna (quam vos Americam vocatis) quæ nunc vuncas tantum et canoas habent, vi magna abundabant, illis diebus, navium grandiorum. Insula hæc nostra (ut ex fidelibus ejus ætatis historiis plane liquet) instructa tum fuit navibus mille quingentis, iisque fortibus, et magnæ capacitatis. De hoc, quod loquor, apud vos exigua admodum, aut nulla est memoria, at nobis pro certo cognitum est.

"Eo etiam tempore, ad insulam hanc naves et carinæ earum omninm, quas modo nominabam, nationum appulerunt. Atque, ut fieri solet, naves illæ præter populares suos vehebant multos ex aliis regionibus, quæ ipsæ maritimæ non erant; veluti Persas, Chaldæos, Arabes; ita ut omnes fere nationes potentes et celebres locum hunc adierint: ex quibus nonnullas habemus stirpes, et tribus tenues, usque in hodiernum diem. Quod vero ad naves nostras attinet, in omnes propemodum oras navigarunt, tam ad fretum vestrum, quod columnas Herculis appellatis, quam ad alias, tum Mediterranei, tum Atlantici maris, regiones: veluti ad Paguinum, (civitatem in China antiquissimam,) quæ eadem est cum Cambalu, et Quinze, ad orientale pelagus sita, non procul a finibus Tartariæ orientalis.

"Eodem præterea tempore, et seculo integro insequente, aut amplius, populi magnæ Atlantidis potentes admodum erant. Etsi enim narratio et descriptio, a viro magno vestri orbis facta, (scilicet, progeniem Neptuni sedes suas ibi fixisse,) tum de magnificis, templo, palatio, urbe, et colle, quin et de multiplicibus pulchrorum et magnorum fluviorum spiris, (quæ, tanquam totidem torques, templum illud et urbem cingebant,) ac denique de grandibus illis insignibus ascensus, per quos ad eadem perveniebatur, veluti per scalam quandam cœli, sit fabulosa et poëtica: hoc tamen veritatis immiscetur, regionem illam Atlantidis, tam illam Perniviæ, tunc Coyam vocatam, quam illam alteram regni Mexicani, tunc dictam Tirambel, regna fuisse armis, classe, et opibus, potentia et superba. Tam (inquam) potentia, ut eodem tempore (vel saltem intra spatium decem annorum) duas magnas expeditiones navales susceperint: hi nimirum de Tirambel, per Atlanticum

mare, usque ad mare Mediterraneum, illi autem de Coya per mare Australe, usque ad hanc insulam nostram. De priore autem expeditione videtur auctor ille vester aliquid a sacerdote Ægyptio, quem citat, hausisse. Pro certo enim expeditio talis fuit. Utrum vero Athenienses antiqui illi fuerint, qui copias illas repulerunt et profligarunt, atque hæc eis gloria tribuenda, non habeo quid dicam: illud extra omnem dubitationem, nec navem, nec virum, unquam ab ea expeditione rediisse, neque meliore fortuna usa esset classis illa Coyæ, quæ nos invasit, nisi in hostes clementiores incidisset. Etenim rex insulæ hujus (nomine Altabin) vir prudens, et imperator in bello optimus, cui tum hostium, tum propriæ vires, satis exploratæ erant, ita rem gessit, ut copias eorum terrestres, postquam in terram descendisset, a classe eorum intercluderet, atque veluti indagine utrasque copias cingeret majori exercitu, quam illorum fuit, et terrestri et navali, sicque eos ad deditionem absque prælio compelleret: eumque in potestate sua essent, haud duriores conditiones imposuit, quam jusjurandum ab iis exigendo, se in posterum, contra illum, nunquam arma laturos: quo facto eos inculumes omnes dimisit. Veruntamen vindicta divina, non multo post, superbos illos ausus ulta est, siquidem, intra curriculum centum annorum, aut minus, Atlantis illa magna omnino perdita et destructa fuit: non terræ motu absorpta, ut vir ille vester affirmat, (etenim tractus ille totus terræ motibus parum est obnoxius,) sed per particulare diluvium, sive inundationem; quandoquidem etiam hodierno die regiones illæ majores habeant amnes, atque etiam montes altiores, qui aquas in planities effundant, quam alia pars quæcunque orbis veteris. Sed illud verum est, inundationem illam non fuisse profundam, non amplius forsan, in pluribus locis, quam ad quadraginta pedes; unde factum, ut licet homines et bestiæ undique demerserit, silvestres nihilominus habitatores quidam montium evaserint. Aves quoque in tuto fere fuerunt, ad montes aut arbores præaltas convolando. Homines vero, licet in aliquibus locis ædificia haberent altiora, quam quo aquæ pervenire possint; inundatio tamen illa, licet minime profunda, diuturna certe fuit. Unde, qui in valle degebant, propter penuriam cibi, et rerum aliarum necessariarum, fame et inopia perirent. Itaque ne miremini, si America habitatorum tam rara sit, neque si populus ejusdem adeo simplex et barbarus existat. Etenim rationem sic instituere debetis; populum Americanum novum esse, et recentem (inquam) præ cæteris orbis habitatoribus, annis non minus mille. Tantum enim temporis interecesserat inter diluvium universale, et illud Americæ particulare. Siquidem tenues illæ et raræ humani generis reliquiæ, quæ in montibus manserant, in inferiores regionis partes tarde sobolem dederunt; eumque essent homines feri, et omnium rerum rudes (neutiquam Noacho, et filiis ejus similes, qui familia erant, ex universo orbe electa) ad literas, artes, et vitæ cultum, posteris transmittendum, non sufficiebant. Atque insuper, cum in habitationibus suis montanis (propter asperrimum frigus regionem illorum) pellibus ursorum, tigridum, et caprorum magnorum et hirsutorum, qui in illis partibus abundant, vestire se consuevissent, postea autem in vallem descendentes, intolerabiles ibi fervores ferre non possent, neque vestium magis levium ulla copia eis præsto esset, coacti sunt morem nude incedendi introducere, qui apud illos usque in hodiernum diem in usu est. Solummodo magna voluptate, et desiderio afficiuntur avium plumas gestandi; atque hoc procul dubio a traditione, et exemplo majorum, qui in montibus habitabant, hauserunt; qui ad hunc forte usum allecti fuerunt ex innumera avium multitudine, alta petentium, cum ima aquis stagnarent. Videtis (fratres) per casum hunc majorem, et temporis quasi miraculum, commercium nostrum cum Americanis cessasse, cum ipsi amplius non essent, cum quibus, supra omnes mortales, commercium antea habuimus, utpote regioni nostræ proximis. Quantum vero ad alias orbis partes, manifestissimum est, seculis succedentibus, sive propter bella mota, sive ex periodo et vicissitudine temporum, navigationes ubique majorem in modum elanguisse: præcipue autem navigationes longinquas; propterea quod triremes, et ejusmodi carinæ, quæ oceanum vix tolerare possent, in usum venire cœperunt. Hinc igitur, quam ob causam, notitia illa regionis nostræ, quæ a navigantibus ad nos acquiri potuit, multis abhinc seculis defecerit, clare cernitis; nisi forsan raro eventu talis appulsus obtigerit, quemadmodum ante dies paucos vester. Jam vero de navigationis nostræ in alias partes cessatione aliam vobis causam assignare oportet. Neque enim denegare possum (si verum fateri cupiam) quin apparatus et instructio nostra navalis, numero et robore navium, abundantia nautarum, peritia gubernatorum, et aliis rebus quibuscunque, æque hodie valet, ac olim valebat. Itaque, quid in re sit, quod domi jam sedeamus, separatim vobis declarabo: atque hoc propius accedet ad quæstionem vestram, quam initio proposuistis, elucidandam.

"Regnavit in hac insula, ante annos mille nongentos, rex, cujus memoriam supra alios omnes maxime colimus et veneramur: non superstitiose, sed tanquam divini cujusdam instrumenti, licet hominis mortalis. Nomen ei fuit Salomona. Eum autem pro legislatore hujus gentis ducimus. Regi isti cor Deus indidit latum, et in bonis inscrutabile: qui in illud totus incumbebat, ut regnum et populum suum beare. Itaque, cum secum reputaret, quam sufficiens, et (ut dicam) substantiva, terra hæc ex sese fuerit ad seipsam sustentandam, absque opibus aut copiis exterorum; quippe quæ in circuitu quinquies mille et sexcenta milliaria, plus minus, contineret; et maxima ex parte ferax imprimis esset, et bonitate soli præstaret: atque rursus perpendens classem et naves regni, non segniter applicari et exerceri posse, tam per piscationem, quam per transportationem et vecturam de portu in portum; necnon per navigationes ad insulas quasdam adjacentes, et imperio huic et legibus subditas: tum vero in memoriam revocans, quam felix et floreus, eo tempore, regni hujus status fuerit; ita ut mille modis in deterius, sed vix ullo modo in melius, mutari posset; nihil omnino deesse putabat, quo fines suos nobiles plane et heroicos assequeretur, nisi ut (quantum humana providentia effiecre posset) res illas, quæ suo tempore tam feliciter essent fundatæ et

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stabilitæ, perpetuitate donaret. Quocirca inter leges alias suas fundamentales, leges plurimas sanxit de introitu exterorum interdicendo; qui eo tempore (licet post calamitatem Americanam) satis frequens erat: isthoc instituto, quia a novitatibus et mixturis morum metuebat. Verum est, interdictum simile, de introitu exterorum, scito veteri apud Chinenses valuisse, atque etiamnum valere. Sed ibi res est despicabilis, eosque reddidit gentem curiosam, imperitam, timidam, et ineptam. At legislator noster, in lege sua condenda, diversum longe adhibuit temperamentum. Primum enim, jura humanitatis omnia sarta tecta servavit, in institutis et fundationibus suis pro levamine et solatio peregrinorum afflictorum; quod et vos experti estis." Ad quod dictum, ut par erat, consurreximus omnes, nosque inclinavimus. Ille perrexit: "Rex idem, cupiens factis humanitatis consilia politica adjungere; atque humanitati minime convenire putans, ut exteri inviti detinerentur, nec minus rationibus status non convenire, ut redirent, et insulæ hujusce arcana evulgarent, hanc viam iniit. Constituit, ut ex exteris, quibus permissum foret in terram hanc descendere, qui abire vellent, non prohiberentur; qui autem manere præoptarent, conditiones et vivendi facultates a statu reciperent; in qua re visu tam acri polluit, ut, post tot seculorum spatia a lege hac condita, memoriam nullam habeamus, ne vel unicæ duntaxat navis, quæ reditum prætulit; atque tredecim tantum virorum, temporibus diversis, qui in nostris navibus reverti elegerunt. Quid autem pauci illi, qui sic redierunt, de regione hac propalarint, nos fugit. Facile autem existimare potestis, quicquid retulerint, non aliter quam pro insomnio quodam habitum esse. Navigationes autem nostras ad partes exteras visum est legislatori nostro penitus coërcere. In China hoc non fit. Etenim Chinenses, quo volunt, et possunt, navigant. Quod satis ostendit, legem illorum, de exteris arcendis, a pusillanimitate sola, et metu provenire. Interdictio autem hæc nostra unam tantum recipit restrictionem, eamque certe admirabilem: bonum enim, quod a communicatione cum exteris trahi possit, conservat, malum autem evitat. Id vobis nunc aperiam. Atque hic videbor aliquantisper ab eo, quod agitur, digredi: sed mox hoc ipsum ad rem pertinere perspicietis. Intelligetis itaque (amici mei præcari) inter acta illius regis unum maxime eminere. Illud est, fundatio sive institutio ordinis cujusdam et societatis, quam nos Domum Salomonis vocamus. Nobilissimam dico (quantum nos arbitramur) omnium, per terrarum orbem, fundationem, atque regni hujusce luminare magnum. Domus hæc studiis et contemplationibus operum et creaturarum Dei dicata est. Putant nonnulli, nomen traxisse a fundatore, paululum corruptum: ac si deberet dici Salomonæ domus: verum archiva ipsa authentica sic scriptum habent, prout in sermone quotidiano nunc profertur. Itaque nomen fluxisse arbitror a rege illo. Hebræorum, qui apud vos celebris est, nobis autem non ignotus. Habemus enim portiones aliquas operum suorum, quæ apud vos desiderantur. Historiam illam naturalem dico, quam conscripsit "De plantis omnibus, a cedro Libani, usque ad hyssopum, quæ de pariete egreditur, atque de omnibus rebus, quibus vita et motus inest." Hinc animum meum cogitatio illa subiit, regem nostrum, quandoquidem se in multis cum rege illo Hebræorum consentire sensit, (qui multis ante eum annis vixerat,) ejus titulo fundationem hanc honorasse. Atque in hanc opinionem præcipue adducor, quod in historiis admodum antiquis invenio, societatem hanc interdum Domum Salomonis vocari, interdum autem Collegium operum sex dierum. Unde persuasum habeo, regem illum nostrum præcellentem ab Hebræis addicicisse, Deum mundum hunc, et omnia quæ ei insunt, sex dierum spatio creasse, idcoque cum domum illam instituerat ad inquisitionem et inventionem naturæ veræ et interioris rerum omnium, quo Deus conditor majorem reciperet gloriam, ob fabricam earum; homines autem uberiorem perciperent fructum in usu earum; indidisse etiam ei illud alterum nomen, nimirum, Collegii operum sex dierum. Verum, ut redeamus tandem ad id quod nunc agitur. Postquam rex omnem subditis navigationem interdixisset, præterquam in partes huic imperio subditas, hanc nihilominus ordinationem sancivit; nimirum, singulis duodenis annis mittendas ex hoc regno naves binas, in partes orbis diversas: in utraque navium harum tres ex fraternitate Domus Salomonis seorsum vehendos: his in mandatis dandum, ut nos, de rebus, et statu locorum illorum, ad quos appellerent, certiores facerent, præcipue autem de scientiis, artibus, manufacturis, et inventionibus mundi universi: utque in reditu libros, instrumenta, exemplaria in unoquoque genere, ad nos perferrent: navibus, postquam in terram fratres exposuissent, redeundum; fratribus autem usque ad novam missionem peregre manendum: naves hasce non aliis mercibus instruendas, quam commeatus copia bona, nec non thesauri satis larga quantitate, in usum fratrum, ad res eas coëmendas, et homines tales remunerandos, quibus opus esset. Jam vero, ut vobis proferam modos, quibus vulgus nautarum coërcentur, ne in terris, ad quas appellant, dignoscantur: aut quibus modis, in terram expositi, sub nomine nationum aliarum lateant; aut ad quæ loca navigationes nostræ designatæ sint: aut quæ loca novis rursus missionibus præfigantur, atque alias hujus generis circumstantias, quæ ipsam practicam partem spectant, mihi proloqui fas non est: neque multum certe ad quæstionem vestram conducet. Sic itaque videtis, commercium nos instituisse, non pro auro, argento, et gemmis, non pro sericis, aut aromatibus, neque pro aliis quibusvis rebus crassis, sed tantum pro creatura Dei prima, luce scilicet: luce, inquam, in quacunque tandem terræ regione prorumpente et germinante.

Cumque hæc dixisset, conticuit: nos etiam aliquandiu silebamus. Revera enim omnes attoniti eramus, cum andiremus res tam mirabiles oratione tam probabili recenseri. Ille autem, animos nostros cogitationibus aliquibus gravidos sentiens, partui autem non maturos, civiliter admodum nos explicuit; et ad quæstiones de itinere, et fortunis nostris deflexit: sub finem autem dixit, recte nos facturos, si consultationem inter nos iniremus de tempore pro mora nostra a statu petendo. In quo jussit minime verecundari nos; tempus enim, quodcunque nobis postulare visum fuerit, ipse non dubitabat se impe-

traturum; ad quod dictum surreximus omnes, et humiliter fimbriam liripipii sui exosculari cœpimus. Ille autem renuit, et continuo a nobis discessit. Postquam vero inter homines nostros evulgatum fuit, statum illum conditiones exteris, qui manere vellent, largiri solere; vix ulli eorum persuadere potuimus, ut navem nostram curarent, aut quo minus præpositum mox adirent ad conditiones petendas. Sed, non sine magna difficultate, eos tandem cohibuimus, donec ex consensu, quid faciendum esset, statueremus.

Jam autem tanquam liberos nos rebamur, cum metum omnem extremæ ruinæ depulsum vidimus. Jucundissime item viximus: civitatem ipsam, nec non pomœrium illud, quod nobis concessum erat, perambulantes: in quo, quæcunque visu digna, aut grata erant, perquirebamus, et spectabamus. Interea familiaritatem cum plurimis ex civitate, iisque non ex inferiore ordine, contraximus: inter quos humanitatem tantam perspeximus, adeoque consuetudinem tam jucundam et liberam peregrinos veluti in sinu amplectendi, et fovendi, ut vix abesset, quin oblivionem nobis omnium eorum, quæ in patriis nostris chara antea erant, induceret. Quin et quotidie incidimus in res observatu et relatu dignissimas. Certe si ullibi terrarum speculum sit, quod oculos hominum allicere debeat, et detinere, illud exhibet hæc regio. Evenit die quodam, ut duo ex nostris invitarentur ad festum quoddam (quod vocant) familiæ. Mos autem celebrandi festum illud censeri merito possit maxime pius, ex ipsa naturæ lege depromptus, et veneratione dignus: monstrans proculdubio nationem illam omni bonitate refertam esse. Qui talis est: concessum est per leges regni civis, cui vivere contigerit dum triginta e corpore suo prognatos simul superstites viderit, eosque omnes tertium ætatis annum egressos, festum hoc celebrare. Quod ex publico sumptu fit. Pater familiæ (quem Tirsanum vocant) biduo ante festum, tres ex amicis suis, quos eligere placuerit, sibi advocat, ac insuper magistratus civitatis, aut oppidi, ubi festum celebratur, præsentia honoratur: omnes autem ex familia utriusque sexus adesse jubentur. Per dies hosce duos Tirsanus cum amicis illis suis, et magistratu, circa bonum familiæ consultationem init. Tunc si quæ discordiæ, aut lites, in familia obortæ sint, terminantur, et sedantur. Tunc si qui ex familia in paupertatem redacti fuerint, aut quovis modo afflicti, iisdem subveniendi, et necessarium victum suppeditandi ratio initur. Tunc si qui eorum vitiis addicti, aut genus vitæ iners et pravum agant, reprehenduntur, et censuram subeunt. Quinetiam circa nuptias, et vitæ conditionem alicui eorum maxime convenientem, consilium tunc capitur; et alia similia tractantur, et decernuntur. Magistratus ideo assidet, ut decreta et mandata Tirsani, si quis forte ex familia non pareat, auctoritate sua muniat, et executioni demandet: licet hoc raro admodum requiratur, tantam, nimirum, ordini naturæ obedientiam præstant. Tunc etiam Tirsanus ex filiis suis unum eligit, qui cum eo in domo sua perpetuo vivat; qui exinde vocatur filius vitis. Ratio nominis postea patebit. Die festo, post liturgiam divinam celebratam, progreditur Tirsanus in aulam quandam amplam, ubi solennia festi peraguntur: quæ aula a parte superiori gradum habet unicum ascensus. Illic ad parietem, in medio, collocatur cathedra, cum mensa, et peristromate super eam: supra cathedram extenditur conopeum, rotundum, vel ovatum, ex hedera; hedera certe præ nostra plurimum albescente colore, non absimili folio populi, quam vocamus argenteam: sed aliquanto magis splendido: viret enim per hiemem. Conopeum autem filis argenteis et byssinis diversorum colorum, quæ hederam colligant, eleganter contexitur; atque opificium plerumque est alicujus ex filiabus familiæ; in vertice reticulo tenui ex bysso et argento velatur, verum materia conopei hedera vera est: ex qua, post solennitatem finitam, amici familiæ folium aliquod, aut ramusculum, decerpere amant. Progreditur Tirsanus, prole sua universa stipatus, masculis præeuntibus, fœminis a tergo insequentibus. Sin mater familiæ fuerit, quæ prolem universam peperit, collocatur ad dextrum latus cathedræ, orchestra quædam cooperta cum ostio secreto, et fenestris, ubi illa clam sedet. Tirsanus, postquam ingressus fuerit, in cathedra illa consident, universa familia juxta parietem, tam a tergo, quam a lateribus aulæ, super gradum ascensus, secundum ordinem ætatis, non habito sexus discrimine, se sistente, et super pedes erecta. Cum consederit (aula interim frequentia haud parva referta, sed sine turba aut strepitu) post moram nonnullam ingreditur ab inferiori parte aulæ taratannus, (quod verbum apud eos significat haraldum,) cujus latera tegunt adolescentuli duo; quorum unus rotulum gerit ex splendente illa lutea membrana, alter botrum uvarum aureum cum pediculo sive caule longa. Haraldus, et uterque adolescentulus, palliis sericis coloris thalassini vestiuntur; verum pallium haraldi radios habet aureos, et dimittitur adeo ut terram nonnihil verrat. Haraldus, ter se aliquantulum inclinans, accedit usque ad gradum ascensus, ibique primo in manum sumit rotulum. Rotulus iste charta regia est, et reditnum, privilegiorum complurium, exemptionum, et insignium honorificorum, patrifamiliæ concessorum, dona continet: inscribitur autem semper: "Tali, amico nostro dilecto, et creditori:" qui titulus, a rege, in hoc solummodo casu tribuitur. Aiunt enim regem nulli debitorem esse, nisi ob propagationem subditorum. Sigillum huic chartæ affixum est regis effigies, auro insculpta: atque quamvis hujusmodi chartæ, ex officio, et tanquam jure, expediantur, pro arbitrio tamen, secundum numerum et dignitatem familiæ, variantur. Hanc chartam perlegit haraldus voce alta; dumque legitur, Tirsanus se in pedes erigit, a duobus filiorum suorum, quos delegerit, supportatus. Tum haraldus super gradum ascendit, et Tirsano chartam in manus tradit: quo facto, ab omnibus, qui absunt, acclamatio magna fit lingua sua, quæ hoc significat, "Felices sunt populi Bensalem." Deinde haraldus ab adolescentulo altero botrum uvarum recipit, qui (ut diximus) aureus est, tam caule, quam uvis ipsis, sed uvæ eleganter colorantur: atque, si masculi ex familia numero excedant fœminas, uvæ purpureæ sunt, cum sole parvo in vertice posito: sin fœminæ mares, uvæ virides sunt, cum luna crescente in vertice. Uvæ autem numerum liberorum familiæ exæquant. Iste etiam racemus aureus ab haraldo traditur Tirsano; qui eun-

dem statim filio illi, quem antea elegerat ut secum in domo maneret, tradit: is autem perpetuo eum ante patrem gestat, quoties in publicum progreditur, tanquam insigne honoris: atque inde nomen (ut dictum est) filii vitis accipit. Peracta hac solennitate, Tirsanus se recipit, atque post moram aliquam interjectam rursus ad prandium egreditur, ubi sedet sub conopeo solus, neque cuivis ex liberis, cujuscunque gradus aut dignitatis, una sedere conceditur: nisi forte fuerit ex domo Salomonis. Servitium mensæ præstant masculi ex familia, qui hoc faciunt, quoties ei aliquid subministrant, in genua procumbentes: fœminæ autem tantum juxta parietem eireumstant. Pars aulæ, quæ infra gradum est, mensas habet utrinque sitas pro eonvivis, quibus decore admodum, et ordine bono, ministratur: sub finem autem prandii (quod apud illos in maximis suis solennitatibus, non ultra sesqui-horam durat) cantatur hymnus, pro ingenio componentis variatus, (habent enim poëtas optimos,) subjectum vero ejus perpetuo sunt laudes Adami, Noachi, et Abrahami: quorum primi duo universi generis humani parentes exstiterunt, tertius, pater fidelium. Concluditur tamen semper cum gratiarum actione propter nativitatem Servatoris nostri: in quo universæ terræ generationes benedictionem consequuntur. Finito prandio, Tirsanus iterum se recepit: atque solus subdueitur in locum interiorem, ubi preces seeretas fundit: dein progreditur tertio, ut bencdictionem suam impertiat universis liberis suis, qui eum circumstant, ut prius. Tum eos nominatim ad se singulos vocat, prout ei placuerit, lieet raro ætatis ordo immutetur. Persona, quæ vocatur (mensa prius semota) continuo in genua ante cathedram procumbit: pater autem manus capiti ejus imponit, atque ei benedicit in hæc verba: "Fili Bensalem (aut filia Bensalem) pater tuus dieit: ille, per quem aurem vitalem hausisti, verbum loquitur: Benedictiones Patris æterni, Principis pacis, et Columbæ sanctæ, descendant super te, et dies peregrinationis tuæ reddant multos et bonos." Hane benedietionem singillatim impertit. Quod si aliqui ex liberis maseulis virtute et meritis præcelluerint, (modo numerum duorum non excedant,) post benedictionem generalem, seorsum eos vocat: manus autem super humeros eorum extendens, illis stantibus, sic infit: "Fili, bene habet quod natus es, da Deo gloriam, et in finem persevera." Atque una ei monile tradit, in figuram spicæ frumenti formatum: quod is semper postea in fronte turbani, aut galeri sui, portat. Hoc peracto, ad musicam et saltationem, et hilaritates id genus alias, apud eos usitatas, pro residuo diei se aceingunt. Atque iste est modus festum illud celebrandi.

Intra paucos dies sequentes, amicitiam et familiaritatem eum mercatore quodam civitatis illius, cui nomen Joabin, contraxi. Erat autem Judæus et circumcisus. Paucas enim quasdam Judæorum stirpes inter eos nunc degentes habent, quibus religionem suam permittunt: quam veniam facilius indulgere possunt, quandoquidem Judæi illi a Judæis in reliquis orbis partibus moribus longe diversi sunt. Nam cum Judæi alii nomen Christi odio habeant, atque adversus populum, inter quem degunt, secretam et inveteratam malitiam foveant, hi contra Servatori nostro attributa plurima sublimia reddunt, nationem autem Bensalem amant impensissime. Sane vir iste, de quo loquor, confiteri semper solebat, Christum natum fuisse ex virgine, atque homine mero majorem extitisse: tum narrare solebat, quod Deus eum Seraphim, qui thronum suum stipant, præfecit: vocabat eum etiam quandoque viam lacteam, quandoque Eliam Messiæ, et aliis compluribus nominibus magnis eum insigniebat. Quæ omnia, licet divina Christi majestate longe inferiora sint, a stylo tamen Judæorum eæterorum multum differunt. Regionis autem Bensalem laudandæ idem nullum faciebat finem: quin et credi voluit, ex traditione quorundam Judæorum illic degentium, populum Bensalem ex stirpe Abrahami, per alium filium, quem Nachoram vocat, fuisse: quin et Moscm, per secretam quandam cabalam, leges illas, quibus populus de Bensalem hodie utitur, condidisse: atque in adventu Messiæ, cum consessurus sit Hierosolymis in throno suo, regem Bensalem ad pedes ejus sessurum; cæteris regibus ad distantiam longam amotis. Veruntamen, somnia ista Judaica si seponas, vir fuit admodum prudens, et doctus, et consilii profundi; quique legum et consuetudinum gentis illius Bensalem perquam gnarus extitit. Inter sermones alios, die quodam, forte dixeram, me relatione illa, quam e quibusdam ex nostris acceperam, circa consuetudinem illorum in celebrando festo, quod vocant, familiæ, magnopere delectatum esse; neque enim videbar mihi unquam de solemnitate aliqua inaudivisse, in qua natura tam insigniter præsideret. Quoniam vero familiarum propagatio ex nuptiali copula proeedit, cupiebam aliquid ex eo rescire, tum circa leges et consuetutines ipsorum circa nuptias; tum utrum matrimonia intemerata conservarent; tum denique utrum polygamia inter illos interdiceretur. Quandoquidem nationcs, quæ subditorum propagationi tantopere studerent, polygamiam plerumque tolerarent. Ad hæc respondit: "non sine causa certe institutionem illam excellentem festi familiæ laudas. Quin et experientia apud nos comprobatum est, familias illas, quæ ex festi illius bencdictione participarunt, mirifice postea semper floruisse. Verum arrige aures modo, et narrabo tibi quod scio. Intelliges, sub sole vix reperiri gentem ullam tam castam, quam hæc de Bensalem: nec ab omni labe, et pollutione adeo puram. Virginem mundi plane dixerim. Memini me legisse, in uno ex libris vestris Europæis, de saneto inter vos eremita, qui spiritum fornieationis videre cupiit, atque parvum, deformem, et turpem Æthiopem illico ei apparuisse: quod si spiritum castitatis Bensalem videre expetisset, proculdubio in forma Cherub alicujus pulchri et gloriosi ei apparuisset. Nihil enim inter mortales pulchrum, aut admiratione dignum, præ gentis istius animis castissimis. Quamobrem notum tibi velim, nulla inter eos esse lupanaria, prostibula nulla, nullas mretrices conductitias, neque aliquid hujusmodi. Imo non sine detestatione quadam mirantur, vos in Europa talia tolerare. Aiunt vos nuptias de officio suo deturbasse: nuptiæ enim in remedium eoncupiscentiæ illicitæ institutæsunt; eoncupiscentia autem naturalis ad nuptias instar stimuli est. Verum cum hominibus remedium, corruptis suis cupiditatibus magis gratum,

adsit, nuptiæ ferc expelluntur. Itaque, innumeros apud vos videre est, qui uxores non ducunt, sed cœlibatum potius impurum, et libidinosum, præoptant, quam jugum matrimonii honorabile. Multi insuper, qui uxores ducunt, sero hoc faciunt, cum juventutis flos et robur evanuerint. Sin forte matrimonium contrahant, quid aliud est matrimonium illis, quam mercatura mera? in quo affinitas, aut dos, aut existimatio quæritur, cum desiderio nonnullo (sed tamen tanquam rei indifferentis) sobolis: minime autem fidelis illa inter virum et fœminam nuptialis unio, quæ principio instituta est, in mentem venit. Neque etiam fieri potest ut illis, qui tam magnam partem ætatis et roboris sui adeo viliter consumpserunt, liberi (pars nostri altera) omnino in pretio sint. Quin et durante vinculo matrimonii, numnam res hæc in melius vertitur, ut fieri debuit, si excessus isti necessitatis solummodo causa tolerarentur? Nequaquam: manent autem desideria eadem etiam post matrimonium, in matrimonii ipsius dedecus et opprobrium. Neque enim lupanarium frequentatio, aut consuetudines meretriciæ, in maritis magis, quam in cœlibem vitam agentibus, puniuntur. Ad novos autem amores proclivitas, et meretriciorum amplexuum delectatio (ubi peccatum in artem conversum est) nuptias reddit rem insipidam, et veluti onus, aut tributum quoddam. Audiunt, hæc a vobis defendi, utpote ad majora mala evitanda tolerata: veluti, adulteria, virginum constuprationem, libidinem contra naturam, et similia. Verum prudentiam hanc censent esse præposteram: eamque vocant conditiones Lothi; qui, ut hospites a contumelia eximeret, filias obtulit. Imo ulterius dicunt, ex hoc parum aut nihil lucri fieri, cum vitia eadem, et appetitus pravi usque maneant et abundent; quandoquidem libido illicita instar fornacis sit, ubi, si flammam omnino contineas, illico exstinguitur: sin exitus aliquis detur, furit. Quantum vero ad amores masculorum, istos ne fando quidem norunt, neque tamen amicitias per universum orbem magis fideles, et inviolatas, reperies. Atque (ut verbo dicam, sicut antea quoque dixi) non ullibi legi tantam vigere castitatem, quantam in hac terra. Quin et sermo apud eos usitatus est, Qui impudicus est, sui reverentiam perdit: reverentia autem sui, secundum Deum et religionem, vitiorum omnium frænum potentissimum."

Hæc cum dixisset, Judæus ille, vir egregius, paulisper tacuit. Atque ego, licet audiendi magis, quam loquendi, cupidus, decorum tamen existimans, ut dum ille aliquantisper respiraret, ipse protinus non silerem, hoc tantum dixi, me ad eum verbis illis usurum, quibus usa est ad Eliam vidua Sareptana, venisse eum ad revocanda in memoriam nobis peccata nostra; quodque ingenue confiteri oportet, abundare justitiam Bensalem plus, quam Europæorum. Ad quæ verba paululum se inclinavit, et sermonem hoc modo continuavit:

" Leges etiam habent circa nuptias complures, prudentissimas sane et honestissimas. Polygamiam non tolerant. Sanxerunt, ut nec nuptiæ celebrentur, nec contractus de nuptiis futuris fiant, nisi post mensem a tempore, quo uterque mutuo se primum conspexerunt. Nuptias absque consensu parentum factas, irritas quidem non habent, sed hæreditate mulctant: etenim talium nuptiam liberos duabus tertiis hæreditatis privant. Equidem, in libro cujusdam e vestris, de republica quadam imaginaria, legi, ubi matrimonium contracturis se invicem nudos conspicere permittitur. Hoc illi non probant. Etenim contumeliæ loco ducunt, ut quis, post notitiam tam familiarem rejiciatur: veruntamen, propter defectus in viris et mulieribus complures secretos, qui matrimonium postea infelix reddere possint, more utuntur magis civili: prope oppida singula, stagna duo habent; quæ vocant stagna Adami et Evæ; ubi permissum est, uni ex amicis viri, atque itidem alteri ex amicis fœminæ, spectare eos separatim in balneo lavantes."

Dumque hoc modo colloqueremur, venit quidam, qui nuncius videbatur, indutus tunica picta et inaurata; qui Judæum allocutus est. Unde ad me vertit, et dixit, " Ignoscas mihi, obsecro; sine mora hinc accersor." Postridie mane rursus ad me venit Judæus, lætabundus, ut videbatur, et dixit: " Perlatus heri est nuncius ad præfectum arbis, intra dies septem accessurum huc unum ex patribus domus Salomonis. Duodecim jam anni elapsi sunt, ex quo ullum eorum hic vidimus. Adventus ejus solennis futurus, causa in occulto. Curabo, ut tibi et sociis tuis locus commodus apparetur, unde celebritatem ingressas ejus spectare possitis." Gratias ei egi, et dixi, nuncium hunc de accessu ejus mihi pergratissimum esse.

Die constituto ingressus est pater. Vir fuit staturæ, et ætatis, mediocris, aspectu decorus, vultum præ se ferens quasi miserantis. Vestitus erat toga, ex panno nigro, sincero, cum manicis largis, et capa. Vestis interior ex lino erat, elegantissimo certe et albissimo, usque ad pedes demissa, cum baltco itidem candido, ex lino. Liripipium etiam gestabat circa collum, ex lino purissimo. Chirothecas habebat sumptuosas, et gemmis ornatas. Calceos hyacinthinos ex holoserico. Collum usque ad humeros nudum. Galerus figura galeæ erat, aut monteræ, ut vocant Hispani: sub qua propendebant cincinni ejus, subcripsi, et modo decenti compositi. Color eorum subniger, quemadmodum et barbæ, quæ in figuram rotundam tonsa erat. Vehebatur autem in cathedra splendida, sine rotis, lecticæ more, binis equis, magnifice phaleratis ex holoserico cœruleo, auro intexto, cathedram ad utrumque finem supportantibus: una cum duobus cursoribus, ad utrumque latus cathedræ, pari ornatu. Cathedra ex cedro erat, inaurata, atque crystallo ornata: nisi quod pars anterior quadras haberet ex sapphiris, auro interstinctis; posterior autem similis ex smaragdis coloris Peruviani. Etiam in medio verticis cathedræ sol erat, ex auro radians: et in fronte ejus Cherub parvus, alis expansis, ex auro itidem. Operimentum cathedræ erat pannus, ex filis aurcis, cum serico cœruleo. Cathedram præibant quinquaginta juvenes, in tunicis laxis ex serico albo, ad tibiam mediam, et tibialibus ex serico itidem albo, calceis autem ex holoserico cœruleo, et galeris ex eodem, cum plumis elegantibus diversorum colorum, galerum ambientibus, in formam chordæ. Proxime ante cathedram incedebant duo viri, capitibus nudis, ves-

titi linteo albo, usque ad talos demisso, et succincti, calceis itidem ex holoserico cœruleo: qui gestabant, alter crucem, alter pedum pastorale: neutrum ex metallo, sed crucem ex xylobalsamo, pedum ex cedro. Equites comitabantur nulli, nec ante, nec pone cathedram, ea (eredo) ratione, ut tumultus omnis, et strepitus, evitarentur. Post cathedram sequebantur magistratus et fraternitates urbis. Sedebat solus, super pulvinar, ex holoserico quodam hirsutiore, coloris cœrulei: sub pedibus autem vestem stragulam habebat ex serico item colorum diversorum, similem Persicæ quidem, sed elegantiorem. Dextram, qua ibat, sustulit nudam, populo benedicens, sed cum silentio. Plateæ ita erant ordinatæ, ut via ampla pateret, nullibi interelusa: neque (credo) acies unquam in exercitu ordinata melius fuit, quam populus, eo tempore, in plateis. Quin et intra fenestras ipsas non indecenter stabant spectatores, sed quisque velut ordine suo locatus. Celebritate finita, Judæus mihi dixit: "Per aliquot jam dies detinebor, quo minus vobiscum pro solito, et ut cupio, versari possim: eo quod a præfecto urbis munus mihi demandatum est ut viro huic summo inservirem." Triduo post, Judæus ad me reversus est, et dixit: "Bonis avibus hae advenistis: pater enim domus Salomonis de vestra in hac urbe mora certior factus est: mihique mandavit, ut renunciem vobis, se universam societatem vestram ad conspectum suum admissurum, seorsum etiam, eum unu aliquo vestrum, quem ad hoc deligetis, collocuturum. Cui rei diem perendinum designavit. Quoniam autem vos benedictione sua impertire in animo habet, tempus ante-meridianum præstituit." Die et hora præfixis venimus: ego autem a sociis meis ad privatum illud colloquium deputatus sum. Invenimus eum cubiculo specioso, aulæis splendentibus instructo, et tapetibus strato, absque ullo gradu ascensus ad cathedram ubi sedebat. Sedebat super solium humile, magnifice ornatum, supra caput autem habebat conopeum ex serico cœruleo, auro eleganter intertexto. Conclave hominibus vacuum erat, nisi quod ab utroque latere solii, honoris ergo, stabat servus, albis vestibus indutus. Vestis ejus interior similis fuit illi, qua amictum eum vidimus in platea. Sed loco togæ, indutus erat pallio, cum capa, ex panno nigro, admodum sincero, circa humeros revincto. Sub ingressum nostrum, prout edocti fueramus, inclinavimus nos submisse: cumque prope solium accessissemus, erexit se in pedes, dextram ejus, exuta chirotheca, attollens, in modum benedicentis: nos autem singuli fimbriam liripipii sui, proni exosculati sumus. Hoc facto, reliqui ex sociis meis recesserunt, ego autem solus mansi. Tunc innuit adulescentulis, ut illi quoque se subducerent, meque juxta assidere voluit, atque lingua Hispanica, ad hunc modum, exorsus est.

"Benedicat tibi Deus, fili mi: gemma præcipua ex iis, quas habeo, te impertiar: etenim haud gravabor, propter Dei et hominum amorem, statum verum domus Salomonis tibi revelare. Fili, ut perspicue cognoscas statum verum domus Salomonis, hoc ordine procedam. Primo declarabo finem fundationis nostræ: secundo apparatum et instrumenta, quibus ad opera instruimur: tertio, officia distincta, et functiones, quæ sociis nostris assignantur: postremo, ordinationes, et ritus, quibus utimur.

"Finis fundationis nostræ est cognitio causarum, et motuum, ac virtutum interiorum in natura, atque terminorum imperii humani prolatio ad omne possibile.

"Apparatus autem, et instrumenta nostra, hæc sunt, Habemus cavernas amplas et profundas, diversarum altitudinum. Profundissimæ earum deprimuntur usque ad sexcentas orgyas. Atque nonnullæ ex iis effossæ sunt subter magnos montes, adeo ut si altitudinem montis atque altitudinem cavernæ simul conferas, profunditatem habent aliquæ earum trium milliarium. Reperimus enim altitudinem montis, usque ad planum, et altitudinem cavernæ a plano, idem revera esse; utrumque æque a sole, et radiis cœlestibus, et aëre aperto, remotum. Has cavernas regionem infimam vocamus. Iisdem autem utimur ad omnes coagulationes, indurationes, refrigerationes, et conservationes corporum. Utimur etiam iis ad mineras naturales imitandas; atque ad productionem novorum metallorum artificialium ex materiis et cæmentis, quæ ibi præparamus et in multos annos sepelimus. Utimur illis quandoque (quod mirum videri possit) ad curationem quorundam morborum, et prolongationem vitæ, in aliquibus eremitis, qui illic vivere præoptant, bene instructi omnibus rebus necessariis; qui certe vivacissimi sunt; a quibus etiam multa addiscimus.

"Habemus etiam alias sepulturas corporum naturalium, et materiarum, non in concavo aliquo, sed in ipsa terra contigua, ubi complura cementa condimus, ut Chinenses condunt porcellanam suam. Sed nos ea habemus majori varietate, et nonnulla ex iis elegantiora, quam porcellana Chinensis. Quin et habemus stercorationum, et fimorum varietatem magnam, item congestionum et massarum aliarum, quæ terram impinguant, et fertilem reddunt.

"Habemus turres præaltas, quarum altissimæ usque ad altitudinem semi-milliaris, linea perpendiculari, insurgunt. Nonnullæ vero earum supra montes excelsos sitæ, ita ut, si altitudinem montis et altitudinem turris simul componas, extenditur altitudo in aliquibus earum usque ad tria milliaria ad minimum. Hæc autem loca regionem supremam appellamus, æstimantes aëris tractum universum, inter supremam et infimam, pro regione aëris media. Utimur his turribus, prout altitudinibus et sitibus earum diversis convenit, ad insolationes, refrigerationes, conservationes, et ad meteora diversa spectanda, veluti ventos, pluvias, nives, grandines, et aliqua ex meteoris ignitis. Atque etiam supra eas, in aliquibus locis, sita sunt habitacula eremitarum, quos quandoque visitamus, atque insuper, quid observare debeant, edocemus.

"Habemus lacus magnos, tam salsos, quam dulces: utimur autem iis ad suppetendos nobis pisces, aves item palustres et aquaticas, omnis generis. Utimur etiam iis ad sepulturas corporum nonnullorum naturalium. Differentiam enim operationis invenimus in rebus, quæ in terra sepeliuntur, aut in aëre subterraneo, et iis, quæ in aqua submerguntur. Habemus stagna, in quorum nonnullis aqua dulcis percolatur ex salsa: in aliis autem per artem aqua

dulcis in salsam mutatur. Habemus insuper rupea in medio maris, et loca quædam nprica nd littora ipsa, pro quibusdam operibus efficiendis, in quibus aura maris requiritur. Habemus quoque gurgites rapidos, et cataractas, ad usum complurium motuum violentorum: ad similem usum habemus machinaa complures, quæ ventos excipiant, multiplicent, et roborent.

" Habemus etiam puteos multos, et fontes artificiales, ad imitationem naturalium scaturiginum et balneorum factos vitriolo, sulphure, chalybe, ære, plumbo, nitro, et aliis mineralibus tinctos: habemus insuper puteos et receptacula parva, ad rerum multarum infusionem; nbi aqua (currens scilicet) virtutem eorpornm melius et vivacins, quam in vasis, et catinis, excipit. Inter qnos habemus nliquos, in quibus conficitur aqua, quam vocamus, paradisi, per præparationes quasdam nostras valde salubris et efficax facta ad sanitatem et longævitatem.

" Habemus etiam ædificia ampla et spatiosa; in quibus imitamenta et repræsentationes meteororum exhibemus: veluti, nivis, grandinis, pluviæ, pluviarum artificialium ex eorporibus mistis, non aquis; tonitruum, fulgurum, coruscationum, et generationum insectorum et animalculornm in aëre, veluti ranarum, muscarum, locustarum, et aliorum.

" Habemus etiam eubicula nonnulla, quæ cubicula sanitatis vocamus, ubi aërem ad libitum tingimus, et temperamus, prout ad curationes complurium morborum, et conservationem valetudinis, conducere, et proprium esse, judicamus.

" Habemus etiam balnea pulchra, et ampla, ex diversis mixturis, ad curationem complurium morborum, et corporis humani restaurationem ab arefactione; nlia item ad roborationem, et confortationem nervorum, partium vitalium, ntque ipsius corporis succi et subatantiæ.

" Habemus etiam pomaria, et hortos amplos et varios, in quibus non tam nobis cordi est pulchritudo ambulacrorum et similium, quam varietas terræ et soli, diversis arboribus et herbis proprii. Aliqui autem eorum arboribus et baccis consiti sunt, ad potnum complura genera conficienda, præter vincas. In his etiam experimenta facimus insitionum, et inoculationum, arborum tam sylvestrium, quam fructiferarum, quæ multos et magnos effectus producunt. Atque efficimus per artem, in iisdem pomariis et hortis, ut frnctus et flores proveniant citius ant serius, quam pro tempestate sua: item, ut minoribus intervallis pullulent, germinent, et fructum ferant, quam natura sua consueverint. Arbores etiam et plantas grandiores efficimus, quam pro natura sua; et fructus earum majores et suaviores; atque sapore, odore, colore, et figura differentes a specie sua: et multos ex iis ita præparamus, ut ad usus medicinales valeant. Habemus etiam modos, per quos plantas complures, per solas terræ mixturas, absque semine, exsurgere, et crescere, faciamus: atque etiam novas et incognitas plantas educimus, a vulgaribns differentes, atque plantas ex una specie in aliam transmutamus.

" Habemus etiam septa, et vivaria, pro bestiis et avibus omnigenis: quibus, non tam propter novitatem et raritatem, quam ad dissectiones et experimenta anatomica, utimur, ut ab iis, quid fieri possit circa corpus humanum, lucem accipiamus. In quibus mirabiles multos effectus reperimus, velnti vitæ in iis continuationem, licet nonnullæ partes, quas vos pro vitalibus habetis, pericrint, aut extractæ fuerint; resuscitationem nonnullarum, quæ specie tenus mortuæ erant, et similia. Experimentum etiam sumimus super illas venenorum omnium, et antidotorum, et aliorum medicamentorum, tam chirurgicorum, quam medicinalium, ut corpori humano melius caveamus. Arte etiam reddimus alias majores, et proceriores, quam pro nntura sua; e contra, alias nanas facimus, et atatura justa privamus: præterea alias feraciores, et partu numerosiores reddimus, quam natura earum fert; e contra, alias steriles, et generationi ineptas. Etiam colore, figura, et animositate, eas multis modis variamus. Procuramus etinm misturas et copulationes animalium diversarum specierum, quæ novas species produxerunt, neque tamen eas steriles, prout communis fert opinio. Insnper, complura genera serpentium, vermium, muscarum, piscium, ex putrefactione producimus; quorum nonnullæ in perfectas species maturantur, sicut aves, aut bestiæ, aut alii pisces; et sexu discriminantur, et generant. Neque tamen ensu hoc facimus, sed satis novimus ex quali materia quale animal sit producibile.

" Habemus etiam piscinas particulares, nbi similia experimur in piscibus, quæ prius de bestiis, et avibus diximus.

" Habemus etiam loca propria ad generationem ejusmodi vermium, et muscarum, quæ vobis incognitæ, et imprimis utiles sunt: quales sunt apud vos bombyces, et apes.

" Non te remorabor commemorando quales habemua domus pro conficiendis, vino, sicera, cerevisia, et aliis potibus, ant pro panibus omnimodis conficiendis: aut culinas, in quibus conficiuntur et præparantur jura, cibi rari et inusitati, ad effectus speciales. Vina habemus ex uvis: potus item ex aliis succis fructnum, decoctionibus granorum, et radicum, et misturis mellis, sacchari, mannæ, fructuum multorum (sicut in uvis faciunt) passorum; etiam ex lacrymis arborum, et medullis arundinum. Potus autem isti sunt ætatum diversarum, nonnulli usque ad annum quadragesimum servati. Habemus etiam potus medicatos ex infusionibus et mixturis diversarum radicum, herbarum, aromatnm, quin et additis quandoque carnibus, ovis, lacticiniis, et aliis esculentis, ex quibus potibus nonnulli sunt instar cibi et potus conjunctim, adeo ut complures, præsertim ætate decrepita, ex illis solis vivant, cum exiguo, aut nullo usu cibi, aut panis. Atque ante omnin contendimus, ut potus tenuissimarum partium conficiamus, quo facilius in corpus se insinnent, sed absque omni mordacitate, acrimonia, aut corrosione: adeo ut nonnulli eorum, super dorsum manus impositi, post exiguam moram, insensibilitur ferme ad palmam penetrabunt; qui tamen linguam, aut palatum, non mordebunt. Habemus etiam aquas, quas ita maturamus, ut nutritivæ plane fiant, et in potus excellentes evadant; unde complures alio potu uti nolint. Panes habemus ex diversis granis, radicibus, nucibus, et glandibus, aliquos etiam ex carnibus et pis-

cibus arefactis, cum fermentorum, et salitionum generibus variis, quorum alii mirum in modum appetitum excitant, alii ita nutritivi, ut ex iis solis, absque alio cibo, complures vivant, qui tamen longævi plerumque sunt. Cibos habemus, quos ita tundimus, inteneramus, et mortificamus, sed tamen absque aliquo gradu putredinis, ut calor stomachi debilis eos facile in chylum bonum vertat, non minus quam calor stomachi fortis operari possit in cibos communes. Genera quædam cibi, panis, et potus, habemus, quæ sumpta, diutius quam pro consueto, jejunium tolerare facient: alia item, quibus qui insuescunt, carne fiunt duriore, et solidiore, quam antea: tum et robur ipsorum ad motum quemlibet augetur et intenditur.

" Habemus etiam dispensatoria, vel officinas pharmacorum: in quibus facile est existimare, cum nos tanta copia et varietate plantarum, et animalium, præ vobis in Europa, abundamus (etenim satis novimus quid apud vos inveniatur) simplicia item, pharmaca, et ingredientia ad medicinas, tanto debere esse magis varia, et multiplicia. Ibi quoque pharmaca habemus ætatum diversarum, et fermentationis diuturnæ. Quantum vero ad medicinarum præparationes, non solum distillationes omnigenas exquisitas, et separationes habemus, præcipue autem per calores lenes, et pereolationes, per diversa lintea, lanea, ligna, imo et substantias solidiores, sed multo magis componendi modos excellentes, per quos compositorum incorporationem talem assequimur, ut videantur ferme simplicia naturalia.

" Habemus etiam artes complures mechanicas, vobis incognitas, et materias per eas confectas, veluti papyros, lintea, serica, textilia, consuta ex plumis elegantissime splendoris mirabilis, tincturas et infectiones colorum pulcherrimas, et alia complura. Quin et officinas etiam aliquarum artium prædictarum, tam earum, quæ in usum communem receptæ non sunt, quam earum quæ sunt. Etenim scire debes ex iis quæ jam recensui, complura per universum regnum in usu esse, quamvis, si ab inventione nostra fluxerint, eorum quandoque exemplaria, tanquam primigenia, et optime elaborata, in domo nostra retinemus.

" Habemus etiam fornaces valde diversas, quæque gradus calorum diversos exhibent et servant, caloris scilicet acris et celeris, robusti et pertinacis, lenis et moderati, sufflati, tranquilli, humidi, sicci, et similium. Sed ante omnia calores ministramus ad imitationem caloris solis, et cœlestium, qui pertranseunt inæqualitates multiplices, et veluti orbes, progressus, et periodos, per quas opera mirabilia edueimus. Neenon habemus imitationes caloris fimorum; et ventrium animalium, atque sanguinis et corporum ipsorum: fœnorum, et herbarum dum humidæ sunt congestarum et conclusarum; calcium vivarum, et rerum aliarum. Item habemus instrumenta, quæ calorem excitant per motum tantum: atque insuper loca ad insolationes fortes, et rursus loca subterranea, quæ vel natura, vel arte, calores excitant. Hos calores diversos exhibemus, prout natura operationis, quam designamus, postulat.

" Habemus etiam domus perspectivas, ubi experimenta exhibemus omnium luminum et radiationum; omnium quoque colorum; atque ex corporibus diaphanis et incoloratis repræsentamus colores singulos, non in forma iridum gliscentes, (ut fit in gemmis, et prismatibus,) sed per se, simplices et constantes. Præterea exhibemus omnem radiorum multiplicationem, adeo ut lumen ejaculemur ad distantias magnas; illique eam virtutem, et fortitudinem indimus, ut per hujusmodi lumen cerni possint lineæ et puncta tenuissima. Exhibemus omne genus luminum tinetorum, et coloratorum, atque omnes elusiones et decceptiones visus, in figuris, magnitudinibus, motibus, coloribus; omnes demonstrationes umbrarum, et imaginum in aëre volitantium. Invenimus quoque media complura, apud vos ignota, luminis originalis producendi ex diversis corporibus. Rursus, artificia invenimus, per quæ objecta valde remota in oculos incurrant, veluti, in cœlo, et aliis locis remotis. Imo etiam quæ prope sunt tanquam ex longinquo ostendimus, et quæ ex longinquo tanquam prope, fietas ad libitum exhibentes distantias. Præterea habemus oculorum adminicula, quæ binoculis vestris, et speculis, usu longe præstant. Habemus etiam artificia, et perspicilla, quibus corpora minuta et pusilla distinete et perfecte cernimus; veluti membra, et colores, muscarum exiguarum, et vermium; grana et glacies in gemmis alias non visibiles; plurima in urinis, et sanguine, alias item non visibilia. Porro exhibemus artificiales irides, halones, circulos, vibrationes, et trepidationes luminis. Denique exhibemus omnes modos reflexionis, refractionis, et conduplicationis objectorum.

" Habemus etiam gemmas omnium generum, multasque earum pulcherrimas, et vobis incognitas: item crystalla, et vitra diversorum generum, inter ea autem quædam ex metallis vitrificatis, et nonnullis materiis aliis præter eas, ex quibus apud nos vitra conficiuntur. Tum complura etiam fossilia, quæ vos non habetis. Magnetes item virtutis prodigiosæ, et lapides alios raros, tam naturales, quam artificiales.

" Habemus etiam domos sonorum, ubi experimur et demonstramus sonos omnes, eorumque generationes. Habemus harmonias, quæ apud vos in usu non sunt, miscentes non tantum beta illud acutum et molle, ut vos, sed quadrantes sonorum, et sonos tremulos aliquos dulcissimos. Habemus instrumenta complura musica, quæ vobis nondum innotuerunt, aliqua eorum melodiam exhibentia suaviorem, quam vestra. Campanas quoque et tintinnabula soni jucundissimi. Exhibemus sonos exiles tanquam magnos: et graves similiter tanquam extenuatos, et acutos. Dein fingimus trepidationes plurimas ex sonis, qui in ortu suo primo integri sunt. Exhibemus atque imitamur sonos omnes articulatos, et literas, item voces, et cantus, quadrupedum, et avium. Habemus quoque adminicula auditus, quæ, auribus apposita, majorem in modum sensum ipsum, et sonorum delationem, promovent. Habemus vocum reflexiones (quas echo dicitis) complures mirabiles, et artificiales, vocem non tantum multipliciter reperentientes et jactantes, sed earum alias vocem augentes, alias extenuantes: nonnullas autem earum vocem articulatam reddentes differentem ab originali. Habemus, ultimo, modos deferendi sonos in tubis, et concavis aliis, ad magnam distantiam, atque in lineis tortuosis.

" Habemus etiam domus suffituum et odorum, ubi

et experimenta saporum adjungimus. Odores ibi (quod mirum videri possit) multiplicamus et fortificamus. Imitamur odores naturales, efficientes ut odores omnigeni ex aliis mixturis exspirent, quam ex genuinis. Similiter etiam sapores imitamur, ita ut gustum, quamvis accuratum, plane fallant. In domo hac continetur insuper confectionarium, ubi conficimus bellaria, placentas, et hujusmodi alia, tam humida, quam sicca: imo et condimus ea cum rebus aliis dulcibus gratissimis, præter saccharum, et mel. Vina ibi conficimus jucundissima, lacticinia, jura, salsamenta, et acetaria, grata certe ad gustum, et vobis minime in usu.

" Habemus etiam domus machinarum, ubi præsto sunt machinæ, et organa, ad omnia genera motuum. Ibi tentamus celeriores educere motus, quam apud vos ullos habetis, sive ex sclopetis vestris minoribus, sive alia quacunque machina. Tentamus item motus reddere faciliores, et intensiores, eos multiplicando per rotas, et modos alios. Tum motus educimus fortiores et potentiores, quam vos habetis, in majoribus vestris bombardis, et basiliscis quibuscunque. Exhibemus tormenta bellica, et machinas, omnis generis: novas misturas pulveris pyrii: ignes Græcos in aqua ardentes, et inexstinguibiles: ignes missiles in omni varietate, tam ad voluptatem, quam ad usum. Imitamur ibi avium volatus; gradus quosdam habemus et commoditates vecturæ per aërem, instar animalium alatorum. Navea habemus, et scaphas, quæ subter aquas navigare possint, et pelagi furores melius perferre: cingula etiam ad natandum, et suffulcimenta. Habemus horologia complura exquisita, et alios motus aëris et aquarum, in orbem, et per vices, revertentes; item motus nonnullos perpetuos. Imitamur motus animalium in simulachris eorum: veluti in simulachris hominum, quadrupedum, avium, piscium, et serpentum. Alios denique habemus motus, æqualitate insignes, et subtilitate.

" Habemus etiam domum mathematicam, ubi instrumenta omnia, tam geometrica, quam astronomica, exquisitissima repræsentantur.

" Habemus etiam domum præstigiarum, ubi omnimodas præstigias, imposturas, et illusiones, et earum fallacias, exhibemus. Facile autem credetis, nos, qui tot habemus vere naturalia, quæ admirationem moveant, posse etiam infinita hominum sensibus imponere; si ea in miraculum ornare, et exaltare vellemus. Verum nos omnem imposturam, et mendacium, odio habemus. Quinetiam sociis omnibus domus nostræ, sub pœna ignominiæ et mulctæ, severe interdiximus, ne quid ex naturalibus, artificioso apparatu ementitum ostentent; sed purum solum, et ab omni fuco, et affectatione miraculi, immune.

" Atque hæ sunt, fili, domus Salomonis divitiæ.

" Quantum ad functiones et munera sociorum nostrorum; duodecim habemus, qui in regiones exteras navigant, sub aliarum nationum nomine, (nostram enim terram non revelamus,) qui libros, materias, et exemplaria experimentorum ad nos perferunt. Hos Mercatores lucis vocamus.

" Tres habemus, qui experimenta, quæcunque in libris inveniuntur, colligunt. Hos Deprædatores vocamus.

" Tres habemus, qui experimenta artium omnium mechanicarum; atque etiam scientiarum liberalium, insuper et practicarum omnium, quæ in artem non coaluerunt, colligunt. Hos Venatores appellamus.

" Tres habemus, qui ad nova experimenta se accingunt, prout ipsis expedire visum fuerit. Hos Fossores, sive Operatores in mineris, vocamus.

" Tres habemus, qui experimenta reliquorum supradictorum in titulos, et tabulas, digerunt, ut intellectus in ea melius agere possit, ad eliciendas ex iis observationes, et axiomata. Hos Divisores vocamus.

" Tres habemus, qui ad hoc ordinantur, ut in experimenta sociorum suorum introspiciant, et ex iis extrahant, et comminiscantur inventa, quæ ad usum vitæ, et practicam spectent, nec non quæ inserviant scientiis, non solum quoad opera, sed etiam ad liquidas causarum demonstrationes, modos eliciendi naturales divinationes, atque facilem et manifestam informationem, quæ sint in corporibus singulis partes latentes, quæ virtutes? Hos Euergetas appellamus.

" Tum vero post multos sociorum universorum conventus et consultationes, qui labores et collectiones priores penitus introspiciunt, et quasi ruminantur, tres habemus, quibus curæ est ex iis, quæ jam sub oculis sunt, nova experimenta, lucis sublimioris, atque in naturam altius penetrantia, excitare, et dirigere. Hos Lampadas vocamus.

" Tres habemus, qui experimenta, ita injuncta et mandata, re exsequuntur, eorumque successus referunt. Hos Insitores vocamus.

" Postremo, tres habemus, qui inventiones et revelationes priores in natura, per experimenta, in observationes majores, axiomata, et aphorismos, erigunt, et promovent; quod faciunt nonnisi consultatione et colloquio prius habitis cum sociis universis. Hos Interpretes naturæ appellamus.

" Habemus etiam (ut res ipsa postulat) novitios quosdam, et tirones, ut successio hominum, ad experimenta et axiomata designatorum, non intereidat; præter famulos multos et ministros, tam viros, quam mulieres: hoc etiam apud nos in more est, ut accurate deliberemus, quæ ex inventis et experimentis nostris in lucem eductis, evulgari conveniat, quæ autem minime. Quinetiam jurejurando nos omnes astringimus ad ea celanda, quæ celari decrevimus: etsi nonnulla ex iis, cum consensu, interdum regi, aut senatui, revelemus, alia autem omnino intra notitiam nostram cohibemus.

" Quantum ad ordinationes, et ritus nostros: habemus porticus duas spatiosas, et pulchras. In quarum una ordine collocamus exemplaria rariorum omnium et præstantiorum inventionum; in altera autem, statuas inventorum insigniorum. Ibi statuam videre est Columbi vestri, qui primus Indias occidentales aperuit. Itidem fabricatoris primi navium. Item monachi vestri, qui primus tormenta invenit ignea, et pulverem pyrium. Item inventoris musicæ. Item inventoris literarum. Item inventoris imprimendi typis. Item inventoris phænomenorum astronomiæ. Item inventoris operandi in metallis. Item inventoris vitri. Item inventoris fili bombycini. Item inventoris vini. Item inventoris segetum et panis. Item inventoris sacchari. Atque inventores

hosce omnes apud nos servamus ex traditione magis certa et fideli, quam apud vos habetur. Deinde habemus statuas inventorum complurium insignium ex nostris, qui res, et opera nobilia invenerunt: quæ cum ipsi non videritis, descriptiones eorum facere nimis longum esset; tum in iisdem recte intelligendis proclive erit errare. Etenim inventori rei cujusque dignioris statuam mox erigimus, eique honorarium satis liberale elargimur. Statuarum istarum aliæ ex ære sunt: aliæ ex marmore, et lapide lydio; aliæ ex cedro, et aliis lignis quibusdam pretiosis, inauratis, et adornatis; ex ferro aliæ; aliæ ex argento; quædam ex auro.

" Habemus etiam hymnos quosdam, et liturgiarum formas, quas quotidie cantamus, et recitamus; quibus laudes, ac jubilæa, et gratiarum actiones resonamus Deo, propter mirabilia opera sua: precum item formulas quasdam, quibus auxilium et benedictionem ejus imploramus, ut labores nostros dirigere et illuminare dignetur, atque in bonos usus et sanctos convertere.

" Postremo, apud nos in usu est præcipuas in regno nrbes subinde adire, et visitare, in quibus (prout occasio se offert) talia inventa utilia revelamus, qualia nobis visum fuerit. Prædicimus etiam, antequam adveniant (id quod ad naturales divinationes pertinet) morbos epidemicos, pestes, animalium noxiorum examina, famem, tempestates et procellas, terræ-motus, inundationes aquarum, cometas, anni temperaturam, et alia: quinetiam consilia super rebus hisce damus, et quid populo facere conveniat ad præventiones et remedia hujusmodi malorum."

Cumque hæc dixisset, se in pedes erexit: ego autem, ut edoctus fueram, in genua procubui, unde dextram capiti meo imponens, dixit: " Benedicat tibi Deus, fili mi; huic itidem relationi, quam feci. Deus benedicat. Licentiam tibi concedo in bonum gentium aliarum eandem evulgandi; siquidem nos hic in sinu Dei vivimus; natio aliis penitus incognita." Hæc locutus discessit: assignaverat autem bis mille circiter aureos, muneris loco, mihi et sociis meis numerandos. Largitores enim magni sunt, ubicunque venerint, &c.

[Reliqua perficere non vacabat.]

IMAGO CIVILIS

JULII CÆSARIS.

Julius Cæsar a principio fortuna exercita usus est, quod ei in bonum vertit; hoc enim illi fastum detraxit, nervos intendit. Animus ei inerat studio et affectu turbidus: judicio et intellectu admodum serenus: hocque iudicat facilis illa sui explicatio, tum in rebus gerendis, tum in sermone. Nemo enim, aut celerius decernebat, aut magis perspicue loquebatur: nil impeditum, nil involutum quia notaret. Voluntate autem et appetitu is erat, qui nunquam partis acquiescebat, sed ad ulteriora semper tendebat: ita tamen ut non immaturo fastidio, sed legitimis spatiis, transitus actionum gubernaret: semper enim perfectissimas clausulas actionibus imponebat. Itaque ille, qui post tot victorias et tantam partam securitatem, reliquias belli civilis in Hispania non contempsit, sed præsens subegit; post extremum illud demum bellum civile confectum, et omnia undique pacata, expeditionem in Parthos continuo moliebatur. Erat proculdubio summa animi magnitudine, sed ea, quæ magis amplitudinem propriam, quam merita in commune, spiraret. Prorsus enim omnia ad se referebat, atque ipse sibi erat fidissimum omnium actionum suarum centrum: quod maximam ei et perpetuam fere felicitatem peperit. Non enim patria, non religio, non officia, non necessitudines, non amicitiæ, destinata ejus remorabantur, vel in ordinem redigebant. Nec magnopere versus in æternitatem erat; ut qui nec statum rerum stabiliret, nec quidquam egregium, vel mole vel instituto, fundaret vel conderet; sed veluti ad se cuncta retulit. Sic etiam ad sua tempora cogitationum fines recepit. Nominis tantum celebritate frui voluit, quod etiam sua id nonnihil interesse putaret. Ac in propriis certe votis magis potentiæ, quam dignitati, studebat; dignitatem enim et famam non propter se, sed ut instrumenta potentiæ, colebat. Itaque veluti naturali impetu, non morata aliqua disciplina ductus, rerum potiri volebat; iisque magis uti, quam dignus videri: quod ei apud populum, cui nulla inerat dignitas, gratiosum erat: apud nobiles et proceres, qui et suam dignitatem retinere volebant, id obtinuit nomen, ut cupidus et audax videretur. Neque multum sane a vero aberrarunt, cum natura audacissimus esset, nec verecundiam unquam, nisi ex composito, indueret. Atque nihilo secius ita ista efficta erat audacia, ut eum nec temeritatis argueret, nec fastidio hominea eneearet, nec naturam ejus suspectam faceret; sed ex morum simplicitate quadam et fiducia, ac nobilitate generis, ortum habnisse putaretur: atque in cæteris quoque rebus omnibus id obtinuit, ut minime callidus aut veterator haberetur, sed apertus et verax. Cumque summus simulationis et dissimulationis artifex esset, totusque ex artibus compositus, ut nihil naturæ suæ reliquum esset, nisi quod ars probavisset; tamen nil artificii, nil affectionis appareret, sed natura et ingenio suo frui, eaque sequi existimaretur. Neque tamen minoribus et vilioribus artificiis et cautelis omnino obnoxius erat, quibus homines rerum imperiti, et qui non propriis viribus, sed alienis facultatibus subnixi, ad auctoritatem suam tuendam uti necesse habent; utpote qui omnium actionum humanarum

peritissimus esset, atque cuncta paulo majora ipse per se, non per alios transigeret. Invidiam autem exstinguere optime norat; idque vel dignitatis jactura consequi non alienum a rationibus suis duxit; veramque potentiam amplexus, omnem illam inanem speciem et tumidum apparatum potentiæ, æquo animo, per totum fere vitæ cursum, declinavit et transmisit: donec tandem, sive satiatus potentia, sive adulationibus corruptus, etiam insignia potentiæ, nomen regium et diadema, concupivit; quod in perniciem ejus vertit. Regnare autem jam usque a juventute meditatus est; idque ei exemplum Syllæ, affinitas Marii, æmulatio Pompeii, corruptelæ et perturbatio temporum facile suggerebant. Viam autem sibi ad regnum miro ordine sternebat: primum per potentiam popularem et seditiosam; deinde per potentiam militarem et imperatoriam. Nam initio sibi erant frangendæ senatus opes et auctoritas, qua salva nemini ad immodica et extraordinaria imperia aditus erat. Tum demum evertenda erat Crassi et Pompeii potentia, quod nisi armis fieri non poterat. . Itaque (ut faber fortunæ suæ peritissimus) primam structuram per largitiones, per judiciorum corruptelas, per renovationem memoriæ C. Marii, et partium ejus, (cum plerique senatorum et nobilium e Syllana factione essent,) per leges agrarias, per seditiosos tribunos quos immittebat, per Catilinæ et conjuratorum insanias, quibus occulto favebat, per exilium Ciceronis, in cujus causa senatus auctoritas vertebatur, ac complures hujusmodi artes, attollebat et evehebat: sed maxime omnium per Crassi et Pompeii et inter se et secum conjunctionem absolvebat. Qua parte absoluta, ad alteram continuo partem accingebatur, factus proconsul Galliarum in quinquennium, rursusque in alterum quinquennium: atque armis, legionibus, et bellicosa et opulenta provincia potens et Italiæ imminens. . Neque enim eum latebat, postquam se armis et militari potentia firmasset, nec Crassum nec Pompeium sibi parem futurum; cum alter divitiis, alter famæ et nomini confideret; alter ætate, alter auctoritate senesceret; neuter veris et vigentibus præsidiis nitercur. Quæ omnia ei ex voto cessere; præsertim cum ipse singulos senatores et magistratus, et denique omnes, qui aliquid poterant, ita privatis beneficiis devinctos et obstrictos haberet, ut securus esset de aliqua conspiratione vel consensu adversus suos conatus ineundis, antequam aperte rempublicam invaderet. Quod cum et semper destinasset, et aliquando tandem faceret, tamen personam suam non deponebat; sed ita se gerebat, ut æquitate postulatorum, et simulatione pacis, et successibus suis moderandis, invidiam in adversas partes torqueret; seque incolumitatis suæ gratia ad bellum necessarium coactum præ se ferret. Cujus simulationis vanitas manifesto deprehensa est, postquam, confectis bellis civilibus, regiam potestatem adeptus, omnibusque æmulis, qui aliquam ei solicitudinem injicere possent, e medio sublatis, tamen de reddenda republica ne semel quidem cogitavit, neque hoc saltem fingere aut prætexere dignaretur. Quod liquido declarat cupiditatem et propositum regni adipiscendi ei et semper fuisse, et ad extremum patuisse. Neque enim occasionem aliquam arripuit, sed ipse occasiones excitavit et efformavit. In bellicis autem rebus maxime ejus virtus enituit, quæ tantum valuit, ut exercitum non tantum duceret, sed et effingeret. Neque enim major ei scientia affuit in rebus gerendis, quam in animis tractandis: neque id vulgari aliqua disciplina, quæ obsequium assuefaceret ad mandata, aut pudorem incuteret, aut severitatem usurparet; sed quæ miris modis ardorem et alacritatem adderet, et victoriam fere præriperet: quæque militem erga ipsum plus conciliaret, quam liberæ reipublicæ conducebat. Cum autem in omni genere belli versatus esset, cumque artes civiles cum bellicis conjungeret, nil tam improvisum ei accidebat, ad quod remedium paratum non haberet; et nil tam adversum, ex quo non utilitatem aliquam derivaret. Personæ autem suæ debitas partes attribuit; ut qui sedens in prætorio in magnis prœliis omnia per nuncios administraret. Ex quo duplicem fructum capiebat; ut et in discrimen rarius se committeret, atque ut cum res inclinare cœpissent, prælium per ipsius præsentiam, veluti nova auxilia, instanraretur. In omni autem apparatu et conatu bellico non tantum ad exempla res gerebat, sed nova et accommodata summa ratione comminiscebatur. Amicitias satis constanter et singulari cum beneficentia et indulgentia coluit. Amicorum tamen hujusmodi delectum fecit, ut facile appareret, eum inquirere ut instrumenti, non impedimenti, loco amicitia eorum esset. Cum autem et natura et instituto ferretur ad hoc, ut non eminens inter magnos, sed imperens inter obsequentes esset, amicos sibi adjunxit humiles, sed industrios, quibus ipse omnia esset. Hinc illud, "Ita vivente Cæsare moriar;" et cætera id genus. Nobilium autem et æqualium suorum amicitias ex usu suo asciscebat: ex intimis autem neminem fere admittebat, nisi qui ex se omnia speraret. Quin et literis et doctrina mediocriter excultus fuit, sed ea, quæ ad civilem usum aliquid conferret. Nam et in historia versatus erat, et verborum pondera et acumina mire callebat; et cum multa felicitati suæ tribueret, peritus astrorum videri voluit. Eloquentia autem ei nativa et pura erat. In voluptates propensus ac effusus erat, quod ei apud initia sua loco simulationis erat: nemo enim periculum ab hujusmodi ingenio metuebat: voluptates autem suas ita moderabatur, ut nihil utilitati aut negotiorum summæ officerent, et animo potius vigorem, quam languorem, tribuerent. In mensa sobrius, circa libidines incuriosus, in ludis lætus et magnificus. Talis cum esset, id ad extremum ei exitio fuit, quod ad principia sua incremento fuerat; id est, studium popularitatis. Nil enim tam populare est, quam ignoscere inimicis: qua sive virtute, sive arte, ille periit.

IMAGO CIVILIS AUGUSTI CÆSARIS.

Augusto Cæsari, si cui mortalium, magnitudo animi inerat inturbida, serena, et ordinata: idque indicant res illæ omnium maximæ, quas ab ineunte adolescentia gessit. Nam qui ingenio commotiores sunt, ii fere adolescentias per varios errores transigunt, ac sub mediam ætatem demum se ostendunt: quibus autem natura est composita et placida, ii prima etiam ætate florere possunt. Atque cum animi dotes, sicut et bona corporis, sanitate quadam, pulchritudine, et viribus contineantur et absolvantur, fuit certe avunculo Julio viribus animi impar, pulchritudine et sanitate superior. Ille enim inquietus et incompositus, (ut sunt fere ii qui comitiali morbo tentantur,) se ad fines suos nihilominus summa ratione expediebat; sed ipsos fines minime ordinaverat, sed impetu infinito, et ultra mortale appetens, ferebatur ad ulteriora: hic autem sobrius, et mortalitatis memor, etiam fines suos ordine admirabili descriptos et libratos habuisse visus est. Primum enim, rerum potire volebat; deinde, id assequi, ut dignus eo fastigio existimaretur: dein etiam frui summa fortuna humanum esse ducebat: ad extremum, addere se rebus, et imaginem et virtutem sui principatus seculis post se futuris imprimere et inferre meditabatur. Itaque prima ætate potentiæ, media dignitati, vergente voluptatibus, senectute memoriæ et posteritati, serviebat.

IN FELICEM MEMORIAM

ELIZABETHÆ ANGLIÆ REGINÆ.

Elizabetha et natura et fortuna mirabilis inter fœminas, memorabilis inter principes, fuit. Neque hæc res indicium monachi alicujus aut hujusmodi censoris umbratilis desiderat: nam isti homines, stylo acres, judicio impares, et partis suæ memores, rerum minus fideles testes sunt. Ad principes viros pertinet hæc cognitio, atque ad eos, qui imperiorum gubernacula tractarunt, et rerum civilium ardua, et arcana norunt. Rarum in omni est memoria muliebre imperium: rarior in eo felicitas; rarissima cum felicitate diuturnitas. Illa vero quadragesimum quartum regni sui annum complevit; neque tamen felicitati suæ superstes fuit. De hac felicitate panca dicere institui, neque in laudes excurrere: nam laudem homines tribuunt, felicitatem Deus.

Primum in parte felicitatis pono, quod ad imperatorium fastigium a privata fortuna evecta sit. Siquidem hoc in moribus et opinionibus hominum penitus insedit, ut quæ præter spem et exspectationem eveniunt, majori felicitati deputentur. Sed non hoc est quod volo; illud intueor, principes, qui in domo regnatrice, et ad spem successionis non dubiam nutriti sunt, ab educationis indulgentia et licentia depravatos, plerumque et minus capaces et minus moderatos evadere. Itaque optimos et excellentissimos reges reperias, quos utraque fortuna erudiit: talis apud nos fuit Henricus septimus, et apud Gallos Ludovicus duodecimus; qui recenti memoria, et eodem fere tempore, non tantum a privata, sed etiam ab adversa et exercita fortuna, regnum acceperc, atque (ille prudentia, hic justitia) floruere. Similis fuit et hujusce principis ratio; cujus initia et spes variavit fortuna, ut in principatu ad extremum erga illam constans et æquabilis esset. Nam Elizabetha natalibus suis successioni destinata, deinde exhæredata, tum posthabita fuit; eadem, regno fratris, fortuna magis propitia et serena, regno sororis magis turbida et ancipiti usa est. Neque tamen ex vinculis subito in regnum assumpta est, ut ab infortunio exacerbata intumesceret; sed libertati restituta, et exspectatione aucta, tum demum regnum, sine tumultu aut competitore, placide et felicissime obtinuit. Atque hæc ideo adducimus, ut appareat, divinam providentiam, optimam principem meditatam, per istiusmodi disciplinæ gradus eam præparasse et extulisse. Neque sane natalium dignitati calamitas matris obesse debet; cum præsertim satis constet, Henricum octavum prius amori novo, quam iræ adversus Annam, indulsisse; ejusque regis natura et ad amores, et ad suspiciones propensissima, et in iisdem usque ad sanguinem præceps, posteritatis notam non effugiat. Adde, quod criminatione, vel personæ ipsius, ad quem referabatur, nomine, minus probabili et tenuissimus conjecturis innixa, circumventa erat; quod et fama, etiam tum, occulto, ut solet, murmure excepit, et Anna ipsa, celso animo et memorabili voce, sub tempus mortis suæ protestata est: nacta enim nuncium (ut existimabat) et fidum et benevolum, eadem hora, qua ad mortem se parabat, hujusmodi mandata ad regem perferenda dedit: "regem in ipsa novis honoribus cumulanda institutum suum optime servare et perpetuo tueri; cum illam primum, generosa stirpe ortam, sed nobilitatis titulis non insignitam, dignitate marchionissæ ornasset, deinde in regni et thori consortium accepisset; et postremo, quia non restabat terreni honoris gradus altior, innocentem ad coronam martyrii evehere voluisset." Atqui nuncius ille ad regem, alio amore flagrantem, hoc perferre non ausus est; sed fama veritatis vindex, ad posteros pertulit.

Atque non exigua pars felicitatis Elizabethæ, etiam mensura, ac veluti curriculum ipsum regiminis sui nobis visum est: non tantum quia diuturnam, sed quia spatium illud ætatis suæ occupavit, quod rerum moderamini, et habenis regni flectendis et moliendis, aptissimum esset. Annos enim viginti quinque (qua ætate curatura finitur) nata, cum regnare inciperet, ad septuagesimum ætatis annum imperium produxit. Itaque, nec pupillæ detrimenta et aliena arbitria; nec rursus exactæ et ægræ senectutis incommoda experta est. Senectus autem, etiam privatis, miseriarum satis; sed regibus, præter communia ætatis mala, adhuc status sui declinationes et inglorios exitus afferre solet. Nemo enim fere in regno ad multam et invalidam senectutem pertingit, quin aliquam imperii et existimationis diminutionem patiatur: cujus rei exemplum maxime eminet in in Philippo secundo rege Hispaniarum, principe potentissimo et imperandi peritissimo; qui extremis suis temporibus, et fessa ætate, hoc quod diximus penitus sensit: ideoque prudentissimo consilio se rerum conditioni submisit, territoriis in Galliis acquisitis se ipse mulctavit, pacem ibidem firmavit, alibi tentavit ut res compositas atque integra omnia posteris relinqueret. Contra, Elizabethæ fortuna tam constans et valida fuit, ut nec ulla rerum declinatio vergentem certe, sed tamen adhuc vigentem, ætatem sequeretur: atque insuper, in signum felicitatis suæ certissimum, non prius diem obierit, quam de defectione in Hibernia prospero prælii eventu decretum esset; ne gloria ejus aliqua ex parte deformata et imperfecta videretur. Et etiam illud cogitandum censeo, in quali populo imperium tenuerit: si enim in Palmyrenis, aut Asia imbelli et molli regnum sortita esset, minus mirandum fuisset; cum effœminato populo fœmina princeps competeret: verum in Anglia, natione ferocissima et belliccosissima, omnia ex nutu fœminæ moveri et cohiberi potuisse, summam merito admirationem habet.

Neque hæc inclinatio populi sui, belli cupida, et pacem ægre tolerans, obfuit, quo minus perpetuis suis temporibus pacem coleret et teneret. Atque hanc ejus voluntatem cum successu conjunctam inter maximas ejus laudes pono. Hoc enim ætati suæ felix, hoc sexui decorum, hoc conscientiæ salutare fuit. Tentata paulisper circa decimum regni sui annum in partibus borealibus rerum commotio, sed statim sopita et exstincta est. Reliqui anni interna pace, eaque secura atque alta, floruere. Pacem autem florentissimam judico, duabus de causis; quæ ad meritum pacis nihil faciunt, ad gloriam maxime: una, quod vicinorum calamitatibus, veluti flammis lucentibus, agis fiebat conspicua et illustrata: altera, quod commodis pacis armorum honor non defuit; cum celebritatem nominis Anglici in armis et re militari per multa decora non solum retineret, sed etiam augeret. Nam et auxilia in Belgium, Galliam, et Scotiam missa; et navales expeditiones susceptæ in Indias; atque ex illis nonnullæ per universi globi terrarum ambitum factæ; et classes in Lusitaniam, et ad oras Hispaniæ infestandas submissæ; et rebelles in Hibernia sæpius concisi et domiti, nihil aut de virtute bellica gentis nostræ remitti, aut de ejusdem fama et honore deperire, sinebant.

Aderat etiam gloriæ meritum, quod et regibus vicinis tempestivis ab ipsa auxiliis regnum conservatum sit; et populis supplicibus, pessimo principum consilio ministrorum suorum crudelitati, et plebis furori, et omni lanienæ et vastitati relictis et fere devotis, levamentum malorum datum est; per quod res eorum adhuc stetere. Nec minus consiliis, quam auxiliis, benefica et salutaris princeps fuit: ut quæ regem Hispaniarum toties delenienda in subditos suos in Belgio ira, et illis suo imperio sub tolerabili aliqua conditione restituendis, interpellavit: et reges Galliæ perpetuis et repetitis monitis de edictis suis, pacem spondentibus, observandis, maxima fide solicitavit. Non negaverim consilio ejus successum defuisse: neque enim prius illud sivit fatum Europæ commune; ne forte ambitio Hispaniæ, veluti carceribus liberata, in regnorum et rerumpublicarum orbis Christiani detrimentum (ut tunc res erant) se effunderet: hoc etiam posterius non sivit sanguis tot innocentium, cum uxoribus et liberis, ad focos et cubilia sua per infimam plebis fæcem, ut belluas quasdam publica auctoritate et animatas, et armatas, et missas, effusus; qui ut regnum, tam nefario sclere obligatum, mutuis cædibus et contrucidationibus expiaretur, in ultionem poscebat. Illa tamen utcunque officium fœderatæ et prudentis, et benevolæ, præstitit.

Alia etiam subest causa, cur pacem ab Elizabetha cultam et conservatam admiremur: ea nimirum, quod non a temporum inclinatione, sed ab ejus prudentia et rebus bene ordinatis, pax ista profecta sit. Nam cum et interna factione ob causam religionis laboraret, et hujus regni robur et præsidium universæ Europæ instar propugnaculi esset adversus regis Hispaniæ illis temporibus formidabilem et exundantem ambitionem et potentiam, belli materia non defuit; verum ipsa et copiis et consiliis superfuit. Istud eventus docuit maxime memorabilis inter res gestas nostri seculi universas, si felicitatem spectes. Nam cum classis Hispanica, tanto rerum tumore et totius Europæ terrore et exspectatione, et tanta victoriæ fiducia, freta nostra sulcaret, nec naviculam aliquam in mari accepit, nec villulam aliquam incendio vastavit, nec littus omnino attigit: sed prælio fusa, misera fuga et crebris naufragiis dissipata est, atque pax Anglico solo et finibus immota, et inconcussa mansit.

Nec minus felix in conjuratorum insidiis devitandis, quam in copiis hostilibus devincendis, et propulsandis, fuit: non paucæ enim contra vitam ejus conspirationes factæ felicissime et patefactæ et disturbatæ sunt: neque ex eo vita ejus magis trepida aut anxia; nec stipatorum numerus auctus; non tempus intra palatium actum et rarus in publicum processus; sed secura et fidens, et, potius liberationis a periculo, quam periculi ipsius memor, nihil de consuetudine sua pristina vivendi mutavit.

Etiam illud notatu dignum videtur, qualia tempora fuerint in quibus floruit. Sunt enim quædam secula tam barbara et rerum nescia, ut homines, tanquam animalium greges, imperio coërcere nil magnum fuerit. Hæc autem princeps in tempora eruditissima et excultissima incidit; in quibus eminere et excellere non absque maximis ingenii doti-

bus et singulari virtutis temperamento dabatur. Etiam imperia fœminarum nuptiis fere obscurantur, laudesque et acta in maritos transeunt: illis autem, quæ innuptæ degunt, propria et integra gloria manet. In illam vero hoc magis cadit, quod nullis imperii adminiculis, nisi quæ ipsa sibi comparaverat, fulciebatur: non frater uterinus aderat, non patruus, non alius quispiam familia et stirpe regia, qui participeps ei curarum et dominationis subsidium esset. Sed et eos, quos ipsa ad honores evexerat, ita et cohibuit, et commiscuit, ut singulis maximam complacendi solicitudinem injiceret; atque ipsa semper sui juris esset. Orba sane fuit, nec stirpem ex se reliquit: quod etiam felicissimis contigit, Alexandro Magno, Julio Cæsari, Trajano, aliis: et semper varie jactatum, et in contrarias partes trahi et disputari solet; cum alii hoc in diminutionem felicitatis accipiant, ne forte homines supra mortalem conditionem bearentur, si et in individuo, et in speciei propagatione, felices essent; alii autem in cumulum felicitatis rem vertant, quod ea demum felicitas completa videatur, in quam fortunæ nil amplius liceat; quod, si posteri sint, fieri non potest.

Aderant ei et externa; statura procera; corporis decora compages; summa dignitas oris cum suavitate; valetudo maxime prospera. Superest et illud, quod, ad extremum valens et vigens, nec fortunæ commutationes nec senectutis mala experta, eam, quam tantopere sibi votis precari solebat Augustus Cæsar, euthanasiam facili et leni obitu sortita sit. Quod etiam de Antonino Pio, imperatore optimo, celebratur; cujus mors somni alicujus suavis et placidi imaginem habebat. Similiter et in Elizabethæ morbo nil atrox, nil ominosum, nil ab humana natura alienum erat. Non desiderio vitæ, non morbi impatientia, non doloris cruciatibus torquebatur: nullum aderat symptoma dirum aut fœdum; sed omnia ejus generis erant, ut naturæ fragilitatem potius, quam corruptionem aut dedecus, ostenderent. Paucos enim ante obitum dies, ex corporis nimia siccitate, et curis, quæ regni culmen sequuntur, attenuata, nec unquam mero aut uberiore diæta irrigata, nervorum rigore perculsa, vocem tamen, (quod fieri non solet in ejusmodi morbo,) et mentem, et motum, licet tardiorem et hebetiorem, retinuit. Atque is personæ ejus status paucis diebus tantum duravit; ut non tanquam actus vitæ novissimus, sed tanquam primus gradus ad mortem fuerit: nam imminutis facultatibus in vita diu manere, miserum habetur; sed a sensu paulatim sopito ad mortem properare, placida et clemens vitæ clausula est.

Addo et illud in felicitatis ejus cumulum insignem; quod non tantum nomine proprio, sed et ministrorum status virtute, felicissima fuit.

Tales enim viros nacta est, quales fortasse hæc insula ante eum diem non peperit. Deus autem, regibus favens, etiam spiritus ministrorum excitat et ornat.

Restant felicitates posthumæ duæ, iis quæ vivam comitabantur fere celsiores et augustiores: una successoris, altera memoriæ. Nam successorem sortita est eum, qui licet et mascula virtute et prole, et nova imperii accessione fastigium ejus excedat et obumbret; tamen et nomini et honoribus ejus faveat, et actis ejus quandam perpetuitatem donet: cum nec ex personarum delectu, nec ex institutorum ordine, quicquam magnopere mutaverit: adeo ut raro filius parenti, tanto silentio, atque tam exigua mutatione et perturbatione successerit. Memoria autem ejus, ita et in ore hominum, et in animis viget, ut, per mortem exstincta invidia, atque incensa fama, felicitas memoriæ cum felicitate vitæ quodammodo certet. Nam si qua ex studio partium et dissensione religionis vagatur fama factiosa, (quæ tamen ipsa jam timida videtur, et consensu victa,) ea et sincera non est, et perennis esse non potest. Atque ob eam causam præcipue hæc, qualia sunt, de felicitate ejus et divini favoris notis, collegi; ut malevolus aliquis tantis Dei benedictionibus suas maledictiones inserere vereatur. Siquis autem ad hæc, ut ille ad Cæsarem, "Quæ miremur, habemus: sed quæ laudemus, expectamus:" sane existimo veram admirationem quendam laudis excessum esse. Neque ea, quam describpsimus, felicitas ulli evenire potest, nisi qui et a divina gratia eximie sustineatur atque foveatur; ac etiam moribus et virtute hanc fortunam sibi aliqua ex parte finxerit. Sed tamen visum est pauca admodum, quæ ad mores pertinent, adjungere, in iis solummodo, quæ iniquorum sermonibus maxime aditum et fomitem præbere videntur.

Fuit Elizabetha, in religione pia et moderata; et constans, ac novitatis inimica. Atque pietatis indicia, licet in factis et rebus, quas gessit, maxime elucescant; tamen et in vitæ ratione et consuetudine familiari adumbrata sunt. Liturgiis et divinis officiis, aut sacello solenniore, aut interiore, raro abfuit. In Scripturis et patrum scriptis (præcipue beati Augustini) legendis, multum versata est. Preces quasdam ipsa ex occasione et re nata composuit. In Dei mentionem vel communi sermone incidens, fere semper Creatoris nomen addidit; et oculos et vultum ad humilitatem et reverentiam quandam composuit, quod et ipse sæpe notavi. Quod autem quidam vulgaverunt, eam minime mortalitatis memorem fuisse, adeo ut nec de senectute, nec de morte, mentionem æquo animo ferret, id falsissimum fuit; cum ipsa sæpissime, multis ante mortem annis, magna comitate, se vetulam diceret; et de inscriptione sepulchri, quid sibi maxime placeret, sermones haberet; cum, diceret, sibi gloriam et splendidos titulos minime cordi esse; sed lineam memoriæ unam aut alteram, quæ nomen ejus tantum, et virginitatem, et tempus regni, et religionis instaurationem, et pacis conservationem, brevi verborum compendio, significaret. Verum est, cum, ætate florenti et liberis procreandis habili, de successore declarando interpellaretur, respondisse, "Se linteum sepulchrale sibi vivæ ante oculos obtendi nullo modo passuram." Attamen, non multis ante mortem annis, cum cogitabunda esset, ac, ut verisimile est, de mortalitate sua meditaretur, ut quidam ex intimis sermonem intulisset, quod munera, et loca multa et magna in republica nimium diu vacarent, commotior et assurgens, "Se certo scire suum locum ne tantillum temporis vacaturum," dixit.

Quod ad moderationem in religione attinet, hærere videbimur, propter legum in subditos religionis pontificiæ latarum severitatem: sed ea profercmus, quæ

nobis et certo nota et diligenter notata sunt. Certissimum est, hunc fuisse istius principis animi sensum, ut vim conscientiis adhibere nollet; sed rursus, statum regni sui prætextu conscientiæ et religionis in discrimen venire non permitteret. Ex hoc fonte, primum duarum religionum libertatem et tolerationem auctoritate publica in populo animoso et feroce, et ab animorum contentione ad manus et arma facile veniente, admittere, certissimam perniciem judicavit. Etiam in novitate regni, cum omnia suspecta essent, ex præsulibus ecclesiæ quosdam magis turbidi et factiosi ingenii, auctoritate legis accedente, sub custodia libera habuit: reliquis utrinsque ordinis, non acri aliqua inquisitione molesta, sed benigna conniventia, præsidio fuit. Hic primus rerum status. Neque de hac clementia, licet excommunicatione Pii quinti provocata, (quæ et indignationem addere, et occasionem præbere novi instituti potuit,) quicquam fere mutavit; sed natura sua uti perseveravit. Nam, prudentissima fœmina et magnanima, hujusmodi terrorum sonitu nil admodum commota est; secura de populi sui fide et amore, et de factionis pontificiæ intra regnum ad nocendum virium tenuitate, non accedente hoste externo. At sub vicesimum tertium regni sui annum, rerum commutatio facta est. Atque hæc temporis distinctio, non commode ficta, sed in publicis actis expressa, ac veluti in ære incisa est. Neque enim ante annum eum gravior aliqua pœna per leges prius sanctas subditis pontificiæ religionis incubuit. Verum sub hoc tempus, ambitiosum et vastum Hispaniæ consilium de hoc regno subjugando paulatim detegi cœpit: hujus pars magna fuit, ut omnibus modis intra regni viscera factio a statu aliena, et rerum novarum cupida, excitaretur, quæ hosti invadenti adhæreret. Ea ex dissentione religionis sperabatur; itaque huic omni opera incumbendum statuebant, et, pullulantibus tunc seminariis, sacerdotes in regnum immissi, qui studium religionis Romanæ excitarent et spargerent, vim excommunicationis Romanæ in fide subditorum solvendâ docerent et inculcarent, et animos hominum novarum rerum exspectatione erigerent et præpararent.

Circa idem tempus, et Hibernia apertis armis tentabatur; et nomen et regimen Elizabethæ variis et sceleratis libellis proscindebatur: denique insolitus erat rerum tumor, prænuncius majoris motus. Neque sane dixerim singulos sacerdotes in participationem consilii assumptos, aut quid agerctur conscios, sed tantummodo prava alienæ malitiæ instrumenta fuisse. Sed tamen hoc verum est, et multis confessionibus testatum, omnes fere sacerdotes, qui ab eo, quem diximus, anno usque ad tricesimum Elizabethæ annum (quo consilium Hispaniæ, et pontificium, per memorabilem illum et classis et terrestrium copiarum apparatum executioni mandatum erat) in hoc regnum immissi erant, habuisse in mandatis inter functionis officia hoc insuper, ut, "Non posse hæc diutius stare: novam rerum faciem et conversionem non ita multo post conspicuam fore; curæ esse et pontifici et principibus catholicis rem Anglicam, modo ipsi sibi non desint," insinuarent. Etiam ex sacerdotibus nonnulli rebus et machinationibus, quæ ad status labefactionem et subversionem pertinebant, manifeste se immiscuerant; et, quod maxime movit, per literas ex multis partibus interceptas consilii hujus et negotii ratio patefacta est; in quibus scriptum erat, "Vigilantiam reginæ et concilii sui circa catholicos elusum iri; illam enim ad hoc tantum intentam esse, ne quod caput in persona alicujus nobilis aut viri primarii catholicorum factioni se attolleret: at consilium jam tale adhiberi, ut per homines privatos atque ex inferiori nota, neque eos inter se conspirantes et conscios, per secreta confessionum omnia disponerentur et præpararentur." Atque hæ tum artes adhibebantur, hujusmodi hominibus (quod etiam nuper in casu non dissimili videre licuit) usitatæ et familiares. Hac tanta periculorum tempestate lex quædam necessitatis imposita est Elizabethæ, ut eam partem subditorum, quæ a se alienata, et per hujusmodi venena facta erat quasi insanabilis, atque interim ob vitam privatam a publicis muneribus et expensis immunem diteseeret, gravioribus legum vinculis constringeret. Atque ingravescente malo, cum origo ejus sacerdotibus seminariorum deputaretur, qui in exteris partibus nutriti, et exterorum principum, hujus regni ex professo hostium, opibus et eleemosynis sustentati essent; et in locis versati, ubi ne nomen quidem ipsum Elizabethæ, nisi ut hæreticæ, excommunicatæ, et diris devotæ, audiebatur; quique etsi non ipsi criminibus majestatis imbuti, at eorum, qui hujusmodi sceleribus operam dedissent, intimi agnoscerentur; quique suis artibus et venenis ipsam catholicorum massam, antea magis dulcem et innoxiam, depravassent, et novo veluti fermento et perniciosa malignitate infecissent; non aliud inventum est remedium, quam ut hujusmodi homines ab omni in hoc regnum aditu sub pœna capitis prohiberentur: quod tandem vicesimo septimo regni sui anno factum est. Neque ita multo post eventus ipse, cum tanta tempestas hoc regnum adorta esset et totis viribus incubuisset, horum hominum invidiam et odium quicquam leniebat, sed potius auxit; ac si omnem charitatem patriæ exuissent. Ac postea sane, licet metus ab Hispania (qui hujus severitatis stimulus erat) consedisset aut remitteretur; tamen cum et memoria præteriti temporis in animis et sensibus hominum alte infixa maneret, et leges semel factas, aut abrogare inconstans, aut negligere dissolutum videretur: ipsa rerum vis Elizabetham traxit, ut ad priorem rerum statum, qui ante vicesimum tertium regni sui annum erat, revertere sibi integrum non esset. Huc accessit quorundam in fisci commodis augendis industria: et ministrorum justitiæ, qui non aliam patriæ salutem, quam quæ legibus continetur, introspicere aut intueri consueverunt, solicitudo; quæ quidem executionem legum poscebant et urgebant. Ipsa tamen (in naturæ suæ specimen manifestum) ita legum mucronem contudit, ut pauci pro numero sacerdotes capitali supplicio plecterentur. Neque hæc defensionis loco dicta sunt, qua res istæ non egent: cum et salus regni in hoc verteretur, et universæ istius severitatis ratio et modus longe infra sanguinaria, et inter Christianos vix nominanda, eaque potius ab arrogantia atque malitia quam a necessitate profecta, pontificiorum exempla steterit. Sed ejus, quod asseruimus, memores, eam in causa

religionis moderatam fuisse, et variationem, quæ fuit, non in natura sua, sed in temporibus exstitisse, demonstrasse nos existimamus.

De constantia autem Elizabethæ in religione ac ejus cultu, maximum argumentum est, quod religionem pontificiam, regno sororis auctoritate publica et multa cura impense et stabilitam et altas jam radices agentem, atque omnium, qui in magistratibus et eum potestate erant, consensu et studio firmatam; tamen quandoquidem nec verbo Dei, nec primitivæ puritati, nec conscientiæ suæ consentanea esset, maximo animo et paucissimis adjumentis convulsit et abrogavit. Neque id præceps aut acri impetu, sed prudenter et tempestive fecit. Idque, tum ex aliis multis rebus, tum ex responso quodam suo per occasionem facto conjicere licet. Nam primis regni diebus, cum in omen et gratulationem novi principatus vineti (ut moris est) solverentur, accessit ad eam, ad sacellum tum pergentem, aulicus quidam, qui ex natura et consuetudine jocandi, licentiam quandam sibi assumpserat: isque, sive ex motu proprio, sive a quodam prudentiore immissus, libellum supplicem ei porrexit, et in magna frequentia clara voce addidit, "Restare adhuc quatuor aut quinque vinctos, idque immerito; illis se libertatem ut reliquis petere; eos esse quatuor Evangelistas, atque etiam apostolum Paulum, qui diu ignota lingua, tanquam carcere, conclusi, inter populum conversari non possent." Cui illa prudentissime, "Sciscitandum adhuc melius ab ipsis esse, utrum liberari vellent, necne." Atque ita improvisæ quæstioni suspenso responso occurrit; veluti omnia integra sibi servans. Neque tamen timide et per vices hæc instillavit; sed ordine gravi et maturo, habito inter partes colloquio, et peractis regni comitiis: tum demum, idque intra orbem unius anni vertentis, ita omnia, quæ ad ecclesiam pertinebant, ordinavit et stabilivit, ut ne punctum quidem ab illis ad extremum vitæ diem recedi pateretur. Quin et singulis fere regni comitiis, ne quid in ecclesiæ disciplina aut ritibus innovaretur, publice monuit. Atque de religione hactenus.

Quod si quis ex tristioribus, leviora illa exaggeret; quod coli, ambiri, quin et amoris nomine se celebrari et extolli sinebat, atque volebat: eaque ultra sortem ætatis continuabat: hæc tamen si mollius accipias, admiratione et ipsa carere non possunt; cum talia sint fere, qualia in fabulosis narrationibus inveniantur; de regina quadam in insulis beatis ejusque aula atque institutis, quæ amoris administrationem recipiat, sed lasciviam prohibeat: sin severius, habent et illa admirationem, eamque vel maximam, quod hujusmodi delicias, non multum famæ, nil prorsus majestati ejus officerent; nec imperium relaxarent, nec impedimento notabili rebus et negotiis gerendis essent. Hujusmodi enim res se cum publica fortuna commiscere haud raro solent. Verum, ut sermones nostros elaudamus: fuit certe ista princeps bona et morata; etiam talis videri voluit: vitia oderat, et se bonis artibus clarescere cupiebat. Sane ad mentionem morum illius in mentem mihi venit quod dicam. Cum scribi ad legatum suum jussisset de quibusdam mandatis, ad reginam matrem Valesiorum separatim perferendis: atque qui ab epistolis erat clausulam quandam inseruisset, ut legatus diceret, tanquam ad favorem aucupandum, "Esse nimirum ipsas duas fœminas principes, a quibus, in usu rerum et imperandi virtute et artibus, non minora quam a summis viris, exspectarentur;" comparationem non tulit, sed deleri jussit; "Seque artes longe dissimiles et instituta diversa ad imperandum afferre," dixit. Delectabatur etiam haud parum, si quis forte hujusmodi sermonem intulisset: "Eam, etiamsi in privata et mediocri fortuna ævum traduxisset, tamen non absque aliqua excellentiæ nota apud homines victuram fuisse;" adeo nihil a fortuna sua ad virtutis laudem mutuare, aut transferre volebat. Verum si in ejus laudes, sive morales sive politicas, ingrederer, aut in communes quasdam virtutum notas et commemorationes incidendum est, quod tam rara principe minus dignum; aut si propriam ipsis lucem et gratiam conciliare velim, in vitæ ejus historiam prolabendum, quod et majus otium et venam uberiorem desiderat. Ego enim hæc paucis, ut potui. Sed revera dicendum est; non alium verum hujus fœminæ laudatorem inveniri posse, quam tempus: quod cum tam diu jam volvitur, nihil simile, in hoc sexu, quoad rerum civilium administrationem peperit.

IN

HENRICUM PRINCIPEM WALLIÆ

ELOGIUM

FRANCISCI BACONI.

Henricus* primogenitus Regis Magnæ Britanniæ, Princeps Walliæ, antea spe beatus, nunc memoria felix, diem suum obiit 6. Novemb. anno 1612. Is magno totius regni luctu et desiderio extinctus est, utpote adolescens, qui animos hominum nec offendisset nec satiasset. Excitaverat autem propter bonam indolem multiplices apud plurimos omnium ordinum spes, nec ob brevitatem vitæ frustraverat. Illud imprimis accessit, quod in causa religionis firmus vulgo habebatur: prudentioribus quoque hoc animo penitus insederat, adversus insidias conjurationum (cui malo ætas nostra vix remedium reperit) patri eum instar præsidii et scuti fuisse, adeo ut et religionis et regis apud populum amor in eum redundaret, et in æstimationem jacturæ merito annumeraretur. Erat corpore validus et erectus, statura mediocri, decora membrorum compage, incessu regio, facie oblonga et in maciem inclinante, habitu plenior, vultu composito, oculorum motu magis sedato quam forti. Inerant quoque et in fronte severitatis signa, et in ore nonnihil fastus. Sed tamen si quis ultra exteriora illa penetraverat, et eum obsequio debito et sermone tempestivo deliniverat, utebatur eo benigno et facili, ut alius longe videretur colloquio quam aspectu, talisque prorsus erat, qui famam sui excitaret moribus dissimilem. Laudis et gloriæ fuit procul dubio appetens, et ad omnem speciem poni et auram decoris commovebatur; quod adolescenti pro virtutibus est. Nam et arma ei in honore erant ac viri militares; quin et ipse quiddam bellicum spirabat; et magnificentiæ operum (licet pecuniæ alioquin satis parcus) deditus erat: amator insuper antiquitatis et artium. Literis quoque plus honoris attribuit quam temporis. In moribus ejus nihil laudandum magis fuit, quam quod in omni genere officiorum probe institutus credebatur et congruus: filius Regi patri mire obsequens, etiam reginam multo cultu demerebat, erga fratrem indulgens; sororem vero uniee amabat, quam etiam (quantum potuit virilis forma ad eximiam virginalem pulchritudinem collata) referebat. Etiam magistri et educatores pueritiæ ejus (quod raro fieri solet) magna in gratia apud eum manserant. Sermone vero obsequii idem exactor et memor. Denique in quotidiana vitæ genere, et assignatione horarum ad singula vitæ munera, magis quam pro ætate constans atque ordinatus. Affectus ei inerant non nimium vehementes, et potius æquales quam magni. Etenim de rebus amatoriis mirum in illa ætate silentium, ut prorsus lubricum illud adolescentiæ suæ tempus in tanta fortuna, et valetudine satis prospera, absque aliqua insigni nota amorum transigeret. Nemo repericbatur in aula ejus apud eum præpotens, aut in animo ejus validus; quin et studia ipsa, quibus capiebatur maxime, potius tempora patiebantur quam excessus, et magis repetita erant per vices, quam quod exstaret aliquod unum, quod reliqua superaret et compesceret, sive ea moderatio fuit, sive in natura non admodum præcoci, sed lente maturescente, non cernebantur adhuc quæ prævalitura erant. Ingenio certe pollebat, eratque et curiosus satis et capax, sed sermone tardior et tanquam impeditus: tamen si quis diligenter observaverat ea, quæ ab eo proferebantur, sive quæstionis vim obtinebant, sive sententiæ, ad rem omnino erant, et captum non vulgarem arguebant; ut in illa loquendi tarditate et raritate judicium ejus magis suspensum videretur et anxium, quam infirmum aut hebes. Interim audiendi miris modis patiens, etiam in negotiis, quæ in longitudinem porrigebantur; idque cum attentione et sine tædio, ut raro animo peregrinaretur aut fessa mente aliud ageret, sed ad ea, quæ dicebantur aut agebantur, animum adverteret atque applicaret; quod magnam ei (si vita suppetiisset) prudentiam spondebat. Certe in illius principis natura plurima erant obscura, neque judicio cujuspiam patefacienda, sed tempore, quod ei præreptum est. Attamen quæ apparebant, optima erant, quod famæ satis est. Mortuus est ætatis suæ anno decimo nono ex febri contumaci, quæ ubique a magnis et insulanis fere insolitis siccitatibus ac fervoribus orta per æstatem populariter grassabatur, sed raro funere; dein sub autumnum erat fœta lethalior. Addidit fama atrocior (ut ille ait) erga dominantium exitus suspicionem veneni.† Sed cum nulla ejus rei exstarent indicia, præsertim in ventriculo, quod præcipue a veneno pati solet, is sermo cito evanuit.

* Harl. MSS. Vol. 1893, fol. 75.

† Tacit. Annal. L. iv. 11.

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MEDITATIONES SACRÆ.

DE OPERIBUS DEI ET HOMINIS.

Vidit Deus omnia, quæ fecerant manus ejus, et erant bona nimis: homo autem conversus, ut videret opera, quæ fecerunt manus ejus, invenit quod omnia erant vanitas et vexatio spiritus.

Quare si opera Dei operaberis, sudor tuus ut unguentum aromatum, et feriatio tua ut sabbatum Dei. Laborabis in sudore bonæ conscientiæ, et feriabere in otio suavissimæ contemplationis. Si autem post magnalia hominum persequeris, erit tibi in operando stimulus et angustia, et in recordando fastidium et exprobratio. Et merito tibi evenit, o homo, ut eum tu, qui es opus Dei, non retribuas et beneplacentiam, etiam opera tua reddant tibi fructum similem amaritudinis.

DE MIRACULIS SERVATORIS.

" Bene omnia fecit."

Verus plausus: Deus, cum universa erearet, vidit quod singula, et omnia erant bona nimis: Deus Verbum in miraculis, quæ edidit (omne autem miraculum est nova creatio, et non ex lege primæ creationis) nil facere volnit, quod non gratiam et beneficentiam omnino spiraret. Moses edidit miracula, et profligavit Ægyptios pestibus multis; Elias edidit, et occlusit cœlum ne plueret super terram; et rursus eduxit de cœlo ignem Dei super duces et cohortes; Elizæus edidit, et evocavit ursas e deserto, quæ laniarent impuberes; Petrus Ananiam sacrilegum hypocritam morte, Paulus Elymam magum cæcitate percussit: sed nihil hujusmodi fecit Jesus. Descendit super eum Spiritus in forma columbæ, de quo dixit, " Nescitis cujus spiritus sitis." Spiritus Jesu spiritus columbinus: fuerunt illi servi Dei tanquam boves Dei triturantes granum, et comedentes paleam; sed Jesus agnus Dei sine ira et judiciis. Omnia ejus miracula circa corpus humanum, et doctrina ejus circa animam humanam. · Indiget corpus hominis alimento, defensione ab externis, et cura. Ille multitudinem piscium in retibus congregavit, ut uberiorem victum hominibus præberet: ille alimentum aquæ in dignius alimentum vini ad exhilarandum cor hominis convertit: ille ficum, quod officio suo, ad quod destinatum fuit, ad cibum hominis videlicet, non fungeretur, arefieri jussit: ille penuriam piscium et panum ad alendum exercitum populi dilatavit: ille ventos, quod navigantibus minarentur, corripuit: ille claudis motum, cæcis lumen, mutis sermonem, languidis sanitatem, leprosis carnem mundam, dæmoniacis animum integrum, mortuis vitam restituit. Nullum miraculum judicii, omnia beneficentiæ, et circa corpus humanum; nam circa divitias non est dignatus edere miracula, nisi hoc unicum, ut tributum daretur Cæsari.

DE COLUMBINA INNOCENTIA ET SERPENTINA PRUDENTIA.

" Non accipit stultus verba prudentiæ, nisi ea dixeris quæ versantur in corde ejus."

Judicio hominis depravato et corrupto omnis, quæ adhibetur, eruditio et persuasio irrita est, et despectui, quæ non ducit exordium a detectione et repræsentatione malæ complexionis animi sanandi; quemadmodum inutiliter adhibetur medicina non pertentato vulnere. Nam homines malitiosi, qui nihil sani cogitant, præoccupant hoc sibi, ut putent bonitatem ex simplicitate morum, ac inscitia quadam, et imperitia rerum humanarum gigni. Quare nisi perspexerint ea quæ versantur in corde suo, id est, penitissimas latebras malitiæ suæ perlustratas esse ei, qui suasum molitur, deridiculo habent verba prudentiæ; itaque ei, qui ad bonitatem aspirat (non solitariam et particularem, sed seminalem et genitivam, quæ alios trahat,) debent esse omnino nota, quæ ille vocat " profunda Satanæ;" ut loquatur cum auctoritate et insinuatione vera. Hinc est illud, " Omnia probate, quod bonum est tenete;" inducens electionem judiciosam ex generali minatione. Ex eodem fonte est illud: " Estote prudentes sicut serpentes, innocentes sicut columbæ." Non est dens serpentis, nec venenum, nec aculeus, quæ non probata debeant esse; nec pollutionem quis timeat, nam et sol ingreditur latrinas, nec inquinatur; nec quis se Deum tentare credat, nam ex præcepto est, et sufficiens est Deus ut vos immaculatos custodiat.

DE EXALTATIONE CHARITATIS.

" Si gavisus sum ad ruinam ejus qui oderat me, et exaltavi quod invenisset eum malum."

Detestatio Job: amicos redamare, est charitas publicanorum ex fœdere utilitatis; versus inimicos autem bene animatos esse, est ex apicibus juris Christiani, et imitatio divinitatis. Rursus tamen hujus charitatis complures sunt gradus, quorum primus est inimicis resipiscentibus ignoscere; ac hujus quidem charitatis etiam apud generosas feras umbra quædam et imago reperitur; nam et leones in se submittentes et prosternentes non ulterius sævire perhibentur. Secundus gradus est inimicis ignoscere, licet sint duriores, et absque reconciliationum piaculis. Tertius gradus est non tantum veniam et gratiam inimicis largiri, sed etiam merita et beneficia in eos conferre. Sed habent hi gradus, aut habere possunt, nescio quid potius ex ostentatione, aut saltem animi magnitudine, quam ex charitate pura. Nam cum quis virtutem ex se emanare et effluere sentit, fieri potest ut is efferatur, et potius virtutis suæ fructu, quam salute et bono proximi,

delectetur. Sed si aliunde malum aliquod inimicum tuum deprehendat, et tu in interioribus cellulis cordis graveris et angustieris, nec, quasi dies ultionis et vindictæ tuæ advenisset, læteris; hoc ego fastigium et exaltationem charitatis esse pono.

DE MENSURA CURARUM.

" Sufficit diei malitia sua."

Modus esse in curis humanis debet, alioqui et inutiles sunt, ut quæ animum opprimant, et judicium confundant; et profanæ, ut quæ sapiant animum, qui perpetuitatem quandam in rebus mundanis sibi spondeat. Hodierni enim debemus esse ob brevitatem ævi, et non crastini, sed, ut ille ait, " carpentes diem, erunt enim futura præsentia vice sua;" quare sufficit solicitudo præsentium. Neque tamen curæ moderatæ, sive sint œconomicæ, sive publicæ, sive rerum mandatarum, notantur. Sed hic duplex est excessus. Primus, cum curarum series in longitudinem nimiam et tempora remotiora extendimus, ac si providentiam divinam apparatu nostro ligare possemus; quod semper etiam apud ethnicos infaustum et insolens fuit. Fere enim qui fortunæ multum tribuerunt, et ad occasiones præsentes alacres et præsto fuerunt, felicitate magna usi sunt. Qui autem, altum sapientes, omnia curata et meditata habere confisi sunt, infortunia subierunt. Secundus excessus est, cum in curis immoramur diutius quam opus est ad justam deliberationem et ad decretum faciendum. Quis enim nostrum est, qui tantum curet, quantum sufficit ut se explicet, vel sese explicare non posse judicet, et non eadem sæpe retractet, et in eodem cogitationum circuitu inutiliter hæreat, et denique evaneseat? Quod genus curarum et divinis et humanis rationibus adversissimum est.

DE SPE TERRESTRI.

" Melior est oculorum visio, quam animi progressio."

Sensus purus in singula meliorem reddit conditionem et politiam mentis, quam istæ imaginationes et progressiones animi. Natura enim animi humanietiam in ingeniis gravissimis est, ut a sensu singulorum statim progrediatur et saliat, et omnia augureture fore talia, quale illud est quod præsentem sensum incutit: si boni est sensus, facilis est ad spem indefinitam; si mali est sensus, ad metum: unde illud, " Fallitur augurio spes bona sæpe suo;" et contra illud, " Pessimus in dubiis augur." Sed tamen timoris est aliquis fructus; præparat enim tolerantiam, et acuit industriam:

> " — Non ulla laborum,
> O virgo, nova mi facies inopinave surgit:
> Omnia præcepi, atque animo mecum ante peregi.
> Virg. Æn. vi. 103.

Spes vero inutile quiddam videtur. Quorsum enim ista anticipatio boni? Attende, si minus eveniat bonum quam speres, bonum licet sit, tamen quia minus sit, videtur damnum potius quam lucrum, ob excessum spei. Si par et tantum sit, et eventus sit spei æqualis, tamen flos boni per spem decerpitur, et videtur fere obsoletum, et fastidio magis finitimum. Si major sit successus spe, videtur aliquid lueri factum; verum est: sed annon melius fuisset sortem lucrifecisse nihil sperando, quam usuram nimis sperando? Atque in rebus secundis ita operatur spes; in malis autem robur verum animi solvit. Nam neque semper spei materia suppetit, et destitutione aliqua vel minima spei universa fere firmitudo animi corruit; et minorem effieit dignitatem mentis, cum mala toleramus alienatione quadam et errore mentis, non fortitudine et judicio. Quare satis leviter finxere poëtæ spem antidotum humanorum morborum esse, quod dolores eorum mitiget, cum sit revera incensio potius, et exasperatio, quæ eos multipliceri et recrudescere faciat. Nihilominus fit ut plerique hominum imaginationibus spei et progressionibus istis mentis omnino se dedant, ingratique in præterita, obliti fere præsentium, semper juvenes, tantum futuris immineant. " Vidi universos ambulantes sub sole eum adolescente secundo, qui consurget post eum; quod pessimus morbus est, et status mentis insanissimus." Quæras fortasse annon melius sit, eum res in dubia exspectatione positæ sint, bene divinare, et potius sperare quam diffidere, cum spes majorem tranquillitatem animi conciliet. Ego sane in omni mora et expectatione tranquillum et non fluctuantem animi statum, ex bona mentis politia et compositione, summum humanæ vitæ firmamentum judico: sed eam tranquillitatem, quæ ex spe pendeat, ut levem et infirmam recuso. Non quia non conveniat tam bona, quam mala, ex sana et sobria conjectura prævidere et præsupponere, ut actiones ad probabilitatem eventuum magis accommodemus; modo sit hoc officium intellectus ac judicii eum justa inclinatione affectus. Sed quem ita spes coërcuit, ut eum, ex vigilanti et firmo mentis discursu meliora, ut magis probabilia, sibi prædixerit, non in ipsa boni anticipatione immoratus sit, et hujusmodi cogitationi, ut somnio placido, indulserit? Atque hoc est quod reddit animum levem, tumidum, inæqualem, peregrinantem; quare omnis spes in futuram vitam cœlestem consumenda est. Hic autem quanto purior sit præsentium sensus absque infectione et tinctura imaginationis, tanto prudentior et melior anima. Vitæ summa brevis spem nos vetat inchoare longam.

DE HYPOCRITIS.

" Misericordiam volo, et non sacrificium."

Omnis jactatio hypocritarum est in operibus primæ tabulæ legis, quæ est de veneratione Deo debitis. Ratio duplex est, tum quod hujusmodi opera majorem habent pompam sanctitatis, tum quod cupiditatibus eorum minus adversentur. Itaque redargutio hypocritarum est, ut ab operibus sacrificii remittantur ad opera misericordiæ: unde illud, " Religio munda et immaculata apud Deum et patrem hæc est, visitare pupillos et viduas in tribulatione eorum;" et illud, " Qui non diligit fratrem suum, quem vidit; Deum, quem non vidit, quomodo potest diligere?" Quidam autem altioris et inflatioris hypocrisis, seipsos decipientes, et existimantes se aretiore eum Deo conversatione dignos, officia charitatis in proximum ut minora negligunt. Qui error monasticæ vitæ non principium quidem dedit, (nam

initia bona fuerunt,) sed excessum addidit. Recte enim dictum est, " Orandi munus magnum esse munus in ecclesia;" et ex usu ecclesiæ est, ut sint cœtus hominum, a mundanis curis soluti, qui assiduis et devotis precibus Deum pro ecclesiæ statu solicitent. Sed huic ordinationi illa hypocrisis finitima est; nec universa institutio reprobatur, sed spiritus illi se efferentes cohibentur: nam et Enoch, qui ambulavit cum Deo, prophetizavit, ut est apud Judam; atque fructu suæ prophetiæ ecclesiam donavit. Et Johannes Baptista, quem principem quidam vitæ monasticæ volunt, multo ministerio functus est, tum prophetizationis, tum baptizationis. Nam ad alios istos in Deum officiosos refertur illa interrogatio, " Si juste egeris, quid donabis Deo, aut quid de manu tua accipiet?" Quare opera misericordiæ sunt opera discretionis hypocritarum. Contra autem fit cum hæreticis; nam ut hypocritæ simulata sua sanctitate versus Deum injurias suas versus homines obducunt; ita hæretici moralitate quadam versus homines blasphemias suas contra Deum insinuant.

DE IMPOSTORIBUS.

" Sive mente excedimus, Deo: sive sobrii sumus, vobis."

Vera est ista effigies, et verum temperamentum viri, cui religio penitus in præcordiis insedit, et veri operarii Dei. Conversatio ei quæ cum Deo est, plena excessus, et zeli, et extasis. Hinc gemitus ineffabiles et exultationes, et raptus spiritus, et agones. At quæ cum hominibus est, plena mansuetudinis, et sobrietatis, et morigerationis; hinc " omnia omnibus factus sum," et hujusmodi. Contra fit in hypocritis et impostoribus: ii enim in populo et ecclesia incendunt se et excedunt, et veluti sacris furibus afflati omnia miscent. Si quis autem eorum solitudines, et separatas meditationes, et cum Deo conversationes introspiciat, deprehendat eas non tantum frigidas et sine motu, sed plenas malitiæ et fermenti; sobrii Deo, mente excedentes populo.

DE GENERIBUS IMPOSTURÆ.

" Devita prophanas vocum novitates, et oppositiones falsi nominis scientiæ."
" Ineptas et aniles fabulas devita."
" Nemo vos decipiat in sublimitate sermonum."

Tres sunt sermones, et veluti styli impostureæ. Primum genus est eorum, qui statim ut aliquam materiam nacti sunt, artem conficiunt, vocabula artis imponunt, omnia in distinctiones redigunt, inde posita vel themata educunt, et ex quæstionibus et responsionibus oppositiones conficiunt: hinc scholasticorum quisquiliæ et turbæ. Secundum genus est eorum, qui vanitate ingenii, ut sacri quidam poëtæ, omnem exemplorum varietatem ad mentes hominum tractandas confingunt: unde vitæ parum, et antiquorum hæreticorum figmenta innumera. Tertium genus eorum, qui mysteriis et grandiloquiis, allegoriis et allusionibus omnia implent: quod genus mysticum et gnosticum complures hæretici sibi delegerunt. Primum genus sensum et captum hominis illaqueat, secundum allicit, tertium stupefacit; seducunt vero omnia.

DE ATHEISMO.

" Dixit insipiens in corde suo, Non est Deus."

Primum, " dixit in corde," non ait, " cogitavit in corde;" hoc est, non tam ita sentit penitus, sed vult hoc credere: quoniam expedire sibi videt, ut non sit Deus, omni ratione sibi hoc suadere, et in animum inducere conatur: et tanquam thema aliquod vel positum vel placitum assercre et adstruere et firmare studet. Manet tamen ille igniculus luminis primi, quo divinitatem agnoscimus, quem prorsus extinguere, et stimulum illum ex corde evellere frustra nititur. Quare ex malitia voluntatis suæ, et non ex nativo sensu et judicio, hoc supponit, ut ait comicus poëta, " Tunc animus meus accessit ad meam sententiam," quasi ipse alter esset ab animo suo. Itaque atheista magis dixit in corde, quam sentit in corde, quod non sit Deus. Secundo, dixit in corde, non ore locutus est; sed notandum est hoc metu legis et famæ fieri, nam, ut ait ille, " Negare deos difficile est in concione populi, sed in concessu familiari expeditum." Nam si hoc vinculum tollatur e medio, non est hæresis, quæ majore studio se pandere, et spargere, et multiplicare nitatur, quam atheismus. Nec videas eos, qui in hanc mentis insaniam immersi sunt aliud fere spirare, et importune inculcare, quam verba atheismi; ut in Lucretio Epicureo, qui fere suam in religionem invectivam singulis aliis subjectis intercalarem facit. Ratio videtur esse, quod atheista, cum sibi non satis acquiescat, æstuans, nec sibi satis credens, et crebra suæ opinionis deliquia in interioribus patiens, ab aliorum assensu refocillari cupit. Nam recte dictum est: " Qui alteri opinionem approbare sedulo cupit, ipse diffidit." Tertio, insipiens est, qui hoc in corde dixit; quod verissimum est, non tantum quod divina non sapiat, sed etiam secundum hominem. Primo enim ingenia, quæ sunt in atheismum proniora, videas fere levia, et dicacia, et audacula, et insolentia: ejus denique compositionis, quæ prudentiæ et gravitati morum adversissima est. Secundo, inter viros politicos, qui altioris ingenii et latioris cordis fuerunt, religionem non arte quadam ad populum adhibuerunt, sed interiore dogmate coluere, ut qui providentiæ et fortunæ plurimum tribuerint. Contra, qui artibus suis et industriis, et causis proximis, et apparentibus omnia ascripserunt, et, ut ait propheta, " retibus suis immolarunt," pusilli fuerunt politici, et circumforanei, et magnitudinis actionum incapaces. Tertio, in physicis et illud affirmo, parum philosophiæ naturalis, et in ea progressum liminarem ad atheismum opiniones inclinare: contra, multum philosophiæ naturalis, et progressum in ea penetrantem, ad religionem animos circumferre. Quare atheismus stultitiæ et insciti ubique convictus esse videtur, ut merito sit dictum insipientium, " Non est Deus."

DE HÆRESIBUS.

" Erratis, nescientes Scripturas, neque potestatem Dei."

Canon iste mater omnium canonum adversus hæreses. Duplex erroris causa, ignoratio voluntatis Dei, et ignoratio vel levior contemplatio potestatis

Dei. Voluntas Dei revelatur magis per Scripturas, " Serutamini ;" potestas magis per ereaturas, " Contemplamini." Ita asserenda plenitudo potestatis Dei, ne maculemus voluntatem. Ita asserenda bonitas voluntatis, ne minuamus potestatem. Itaque religio vera sita est in mediocritate inter superstitionem cum hæresibus superstitiosis ex una parte, et atheismum cum hæresibos prophanis ex altera. Snperstitio repudiata luec Scriptorarum, seque dedens traditionibus pravis vel apocryphis, et novis revelationibus, vel falsis interpretationibus Scripturarum, multa de voluntate Dei fingit et somniat, a Scripturis devia et aliena. Atheismus autem et theomachia contra potestatem Dei insurgit et tumultuatur, verbo Dei non eredens, quod voluntatem ejus revelat, ob ineredulitatem potestatis ejus, cui omnia sunt possibilia. Hæreses autem, quæ ex isto fonte emanant, graviores videntur cæteris. Nam et in politiis atrocius est potestatem et majestatem minuere, quam famam principis notare. Hæresium autem, quæ potestatem Dei minount, præter atheismom pnrum tres snnt gradus, habentque nnum et idem mysterium (nam omnis antiehristianismus operatur in mysterio, id est, sub imagine boni,) hoc ipsum, ut voluntatem Dei ab omni aspersione malitiæ liberent. Primus gradus est eorum, qui duo prineipia constituunt paria, ac inter se pugnantia et contraria, nnum boni, alterum mali. Seenndus gradus est eorum, quibus nimium læsa videtur majestas Dei in constituendo adversus eum principio affirmativo et activo: quare exturbata tali audacia, nihilominus indueont contra Deum principium negativum et privativum. Nam volunt esse opua ipsius materiæ et ereaturæ internnm et nativum et substantivum, ut ex se vergat et relabatur ad confusionem et ad nihilum; nescientes ejusdem esse omnipotentiæ ex aliquo nihil faeere, eujus ex nihilo aliquid. Tertius gradus est eorum, qui arctant et restringunt opinionem priorem tantnm ad actiones humanas, quæ partieipant ex peecato, quas volunt substantive, absque nexu aliquo causarum, ex interna voluntate et arbitrio humano pendere, statuuntque latiores terminos scientiæ Dei quam potestatis, vel potius ejus partis potestatis Dei, (nam et ipsa scientia potestas est,) qua scit, quam ejus qua movet et agit: ut præsciat, quædam otiose, quæ non prædestinet et præordinet. Et non absimile est figmento, quod Epicurus introduxit in Democritismum, ut fatum tolleret, et fortnnæ locum daret, declinationem videlieet atomi, qnod semper a prudentioribus inanissimum commentum habitum est. Sed quidquid a Deo non pendet, ut auctore et principio, per nexus et gradus subordinatos, id loco Dei erit, et novum prineipium, et deaster quidam. Quare merito illa opinio respuitur, ut læsio et diminutio majestatis et potestatis Dei. Et tamen admodum reete dieitur, quod " Deus non sit anetor mali," non quia non auctor, sed quia non mali.

DE ECCLESIA ET SCRIPTURIS.

" Proteges eos in tabernaeulo tuo a contradietione linguarum."

CONTRADICTIONES linguarum ubique occurrunt extra tabernaculum Dei. Quare quocunque te verteris, exitnm controversiarum non reperies nisi huc te reeeperis. Diees, verum est, nempe in nnitatem eeclesiæ. Sed adverte. Erat in tabernaeulo arca, et in area testimonium vel tabulæ legis. Quid mihi narras eortieem tabernaculi, sine nucleo testimonii? Tabernaculum ad enstodiendum et tradendum testimonium erat ordinatum. Eodem modo et ecclesiæ eustodia et traditio per manus Scripturarum demandata est, sed anima tabernaculi est testimonium.

EPISTOLÆ.

I. EPISTOLA AD FULGENTIUM.

REVERENDISSIME P. FULGENTI,

FATEOR me literarum tibi debitorem esse: suberat excusatio justa nimis; implieatus enim fueram gravissimo morbo, a quo necdum liberatus sum. Volo reverentiæ tuæ nota esse consilia mea de scriptis meis, quæ meditor et molior: non perfieiendi spe, sed desiderio experiundi; et quia posteritati (seeula enim ista reqnirunt) inservio. Optimum autem putavi ea omnia, in Latinam linguam tradueta, in tomos dividere. Primus tomus constat ex libris " De Augmentis Scientiarum:" qui tamen, ut nosti, jam perfectus et editus est, et partitiones scientiarum compleetitur; quæ est " Instaurationis meæ" pars prima. Debuerat sequi " Novum Organum;" interposui tamen scripta mea moralia et politica, qnia magis erant in promptu. Hæc sunt: primo, " Historia Regni Henriei Septimi Regis Angliæ;" deinde sequetur libellus ille, quem vestra lingua " Saggi morali" appellastis. Verum illi libro nomen gravius impono, scilieet ut inscribatur, " Sermones Fideles, sive Interiora Rerum." Erunt autem sermones isti, et numero aueti, et traetatu multum amplificati. Item eontinebit tomus iste libellum " De Sapientia Veterum:" atque hie tomus (ut diximus) interjectus est, et non ex ordine " Instaurationis." Tum demum seqnetur " Organum Novum;" eui seeunda pars adhue adjieienda est, quam tamen animo jam eomplexus et metitus sum. Atque hoc modo secunda pars " Instaurationis" absolvetur. Quod ad tertiam partem " Instaurationis" attinet, historiam scilicet naturalem, opus illud est plane regium aut papale,

aut alicujus collegii aut ordinis; neque privata industria pro merito perfici potest. At portiones illæ, quas jam in lucem edidi, "De Ventis, De Vita et Morte," non sunt historia pura, propter axiomata et observationes majores interpositas; sed genus scripti commixtum ex historia naturali et machina intellectus rudi et imperfecta; quæ est, "Instaurationis" pars quarta. Itaque succedet illa ipsa quarta pars, et multa exempla machinæ continebit magis exacta, et ad inductivas regulas magis applicata. Quinto sequetur iste liber, quem "Prodromum Philosophiæ Secundæ" inscripsimus; qui inventa nostra circa nova axiomata ab experimentis ipsis excitata continebit; ut tanquam columnæ jacentes sustollantur: quem posuimus "Instaurationis" partam quintam. Postremo superest philosophia ipsa secunda, quæ est "Instaurationis" pars sexta; de qua spem omnino abjecimus: sed a seculis et posteritate fortasse pullulabit. Attamen, in prodromis (iis dico tantum, quæ ad universalia naturæ fere pertingunt) non levia jacta erunt hujus rei fundamenta. Conamur (ut vides) tenues grandia: in eo tantum spem ponentes, quod videntur ista a Dei providentia et immenso bonitate profecta. Primo, propter ardorem et constantiam mentis nostræ, quæ in hoc instituto non consenuit, nec tanto temporis spatio refrixit. Eqnidem memini me quadraginta abhinc annis juvenile opusculum circa has res confecisse, quod, magna prorsus fiducia et magnifico titulo, "Temporis partum maximum" inscripsi. Secundo, quod propter infinitam utilitatem Dei opt. max. auctoramento gaudere videatur.

Commendatum, rogo, me habeat reverentia vestra illustrissimo viro domino Molines, cujus suavissimis et prudentissimis literis quam primum, si Deus volet, rescribam. Vale, P. reverendissime.

Reverentiæ tuæ amicus addictissimus,

FR. ST. ALBAN.

II. RESCRIPTUM PROCURATORIS REGIS PRIMARII, AD ACADEMIAM CANTABRIGIENSEM, QUANDO IN SANCTIUS REGIS CONCILIUM COOPTATUS FUIT.

Gratæ mihi fuere literæ vestræ, atque gratulationem vestram ipse mihi gratulor. Rem ipsam ita mihi honori et voluptati fore duco, si in hac mente mancam, ut publicis utilitatibus, studio indefesso et perpetuis curis et puro affectu, inserviam. Inter partes autem reipublicæ nulla animo meo carior est, quam academiæ et literæ: idque et vita mea anteacta declarat et scripta. Itaque quicquid mihi accesserit, id etiam vobis accessisse existimare potestis. Neque vero patrocinium meum vobis sublatum aut diminutum esse credere debetis: nam et ea pars patroni, quæ ad consilium in causis adhibendum spectat, integra manet; atque etiam (si quid gravius acciderit) ipsum perorandi munus (licentia regis obtenta) relictum est; quodque juris patrocinio deerit, id auctiore potestate compensabitur. Mihi in votis est, ut quemadmodum a privatorum et clientelarum negotiis ad gubernacula reipublicæ translatus jam sum; ita et postremæ ætatis meæ pars (si vita suppetit) etiam a publicis curis ad otium et literas devehi possit. Quin etiam sæpius subit illa cogitatio, ut etiam in tot et tantis negotiis, tamen singulis annis aliquos dies apud vos deponam; ut ex majore vestrarum rerum notitia vestris utilitatibus melius consulere possim.

Amicus vester maxime fidelis et benevolus,

FR. BACON.

5 Julii, 1616.

III. FRANCISCUS BARO DE VERULAMIO, VICECOMES SANCTI ALBANI, ALMÆ MATRI INCLYTÆ ACADEMIÆ CANTABRIGIENSI SALUTEM.

Debita filii, qualia possum, persolvo. Quod vero facio, idem et vos hortor; ut augmentis scientiarum strenue incumbatis, et in animi modestia libertatem ingenii retineatis, neque talentum a veteribus concreditum in sudario reponatis. Affuerit proculdubio et affulserit divini luminis gratia, si, humiliata et submissa religioni philosophia, clavibus sensus legitime et dextre utamini, et, amoto omni contradictionis studio, quisque cum alio, ac si ipse secum, disputet. Valete.

IV. INCLYTÆ ACADEMIÆ OXONIENSIS.

Cum almæ matri meæ inclytæ academiæ Cantabrigiensi scripserim, deessem sane officio, si simile amoris pignus sorori ejus non deferrem. Sicut autem eos hortatus sum, ita et vos hortor, ut scientiarum augmentis strenue incumbatis, et veterum labores neque nihil neque omnia esse putetis; sed vires etiam proprias modeste perpendentes, subinde tamen experiamini: omnia cedent quam optime, si arma non alii in alios vertatis, sed junctis copiis in naturam rerum impressionem faciatis; sufficit quippe illa honori et victoriæ. Valete.

V. RESCRIPTUM ACADEMIÆ OXONIENSIS FRANCISCO BACONO.

PRÆNOBILIS ET (QUOD IN NOBILITATE PENE MIRACULUM EST) SCIENTISSIME VICECOMES!

Nihil concinnius tribuere amplitudo vestra, nihil gratius accipere potuit academia quam scientias: scientias, quas prius inopes, exiguas, incultas emiserat, accepit tandem nitidas, proceras, ingenii tui copiis (quibus unice augeri poterant) uberrime dotatas. Grande ducit munus illud sibi a peregrino (si tamen peregrinus sit, tam prope consanguineus) auctius redire, quod filiolis suis instar patrimonii impendit; et libenter agnoscit hic nasci Musas, alibi tamen quam domi suæ crescere. Creverunt quidem, et sub calamo tuo, qui, tanquam strenuus literarum Alcides, columnas tuas, mundo immobiles, propria manu in orbe scientiarum, plus

ultra statuisti. Enge exercitatissimum athletam, qui in aliorum patrocinandis virtutibus occupatissimus, alios; in scriptis propriis teipsum superasti: quippe in illo honorum tuorum fastigio, viros tantum literatos promovisti, nunc tandem (O dulce prodigium!) etiam et literas. Onerat clientes beneficii hujus augustior munificentia; cujus in accipiendo honor apud nos manet, in fruendo emolumentum transit usque in posteros. Quin ergo si gratiarum talioni impares sumus, juncto robore alterius seculi nepotes succurrant, qui reliquum illud, quod tibi non possunt, saltem nomini tuo persolvent. Felices illi, nos tamen quam longe feliciores, quibus honorificæ conscriptam tua manu epistolam, quibus oculatissima lectitandi præcepta, et studiorum concordiam, in fronte voluminis demandasti: quasi parum esset Musas de tua penu locupletare, nisi ostenderes quo modo et ipsæ discerent. Solenniori itaque osculo acerrimum judicii tui depositum excepit frequentissimus purpuratorum senatus; exceperunt pariter minoris ordinis gentes; et quod omnes in publico librorum thesaurario, in memoria singuli deposuerunt.

Dominationis vestræ studiosissima,

ACADEMIA OXONIENSIS.

E domo nostra Congregationis
20 Decem. 1623.

VI. FRANCISCUS BARO DE VERULAMIO, VICECOMES SANCTI ALBANI, PERCELEBRI COLLEGIO SANCTÆ ET INDIVIDUÆ TRINITATIS IN CANTABRIGIA SALUTEM.

Res omnes earumque progressus initiis suis debentur. Itaque cum initia scientiarum e fontibus vestris hauserim, incrementa ipsarum vobis rependenda existimavi. Spero itidem fore, ut hæc nostra apud vos, tanquam in solo nativo, felicius succrescant. Quamobrem et vos hortor, ut salva animi modestia, et erga veteres reverentia, ipsi quoque scientiarum augmentis non desitis: verum ut post volumina sacra verbi Dei et Scripturarum, secundo loco volumen illud magnum operum Dei et creaturarum, strenue et præ omnibus libris (qui pro commentariis tantum haberi debent) evolvatis. Valete.

VII. ALMÆ MATRI ACADEMIÆ CANTABRIGIENSI.

Cum vester filius sim et alumnus, voluptati mihi erit, partum * meum nuper editum vobis in gremium dare: aliter enim velut pro exposito eum haberem. Nec vos moveat, quod via nova sit: necesse est enim talia per ætatum et seculorum circuitus evenire. Antiquis tamen suus constat honos; ingenii scilicet: nam fides verbo Dei et experientiæ tantum debetur. Scientias autem ad experientiam retrahere non conceditur: at easdem ab experientia de integro excitare, operosum certe, sed pervium. Deus vobis, et studiis vestris faveat.

Filius vester amantissimus,

FRANC. VERULAM, CANCEL.

Ex ædibus Eborac. Oct. 3, 1620.

* Viz. Novum Organum.

FINIS.

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STEREOTYPED AND PRINTED BY JOHN CHILDS AND SON.

ii.f.5.m1347